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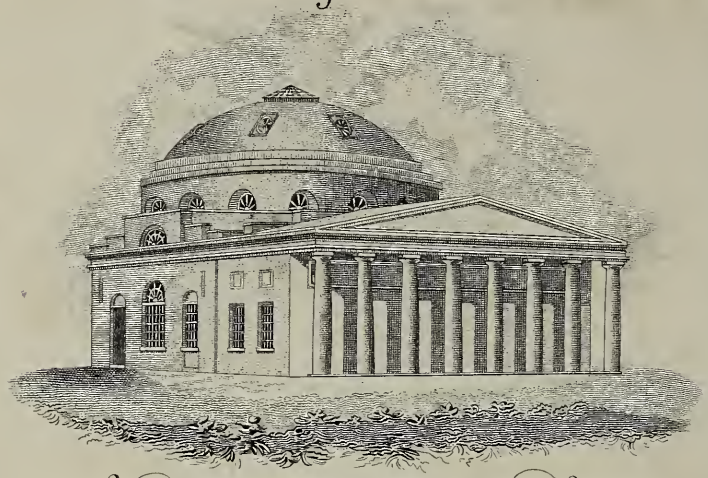

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# ✶ HALF A CENTURY AGO ✶

## THE MODERN ANTIBACILLARY TREATMENT OF TUBERCULAR JOINT-DISEASE*

CHARLES B. NANCREDE, M.D.
Ann Arbor, Michigan

The addresses before the various sections of this Society must of necessity, while dealing more especially with the surgical, medical, or special aspects of their subjects, yet be of such a character as shall interest in some measure the general practitioner, as well as those who devote their attention almost exclusively to one branch of our art.

Casting about in my mind for a theme which should fulfill these conditions, the subject of the modern antibacillary treatment of tubercular diseases of the joints has appeared to me one about which special interest clings, quite as much for the family attendant as for the surgeon, because it is the former who is first consulted; it is the general practitioner who usually determines, by the initial treatment adopted, whether conservatism or destructive operative treatment must prevail; whether life with a more or less useful limb, or life after mutilation shall perchance be secured, although too often the prolonged sufferings end only in death despite the attempt at conservative mutilation by erasion, excision, or amputation of the diseased member. I am confident that a wider appreciation of the possibilities and ease of application of modern conservative treatment by the family attendant is gradually diminishing the frequency with which the knife is now resorted to, and it is my hope that what I shall present for your consideration may in some wise further the same end.

The time at my disposal will admit of my doing little more than contending for the applicability of certain general principles of treatment to all cases, with the modifications requisite to meet the indications for special exceptional ones. An indispensable preliminary, however, is a brief consideration of the pathology of tubercular joint-disease to ascertain how nature effects cures—for this she often does unaided, nay, in the teeth of so-called art.

It is only requisite to state the well-known fact, that while tubercular joint-disease may originate primarily in the constituent bones or the synovial membrane of a joint, in advanced cases all the articular structures become involved, to demonstrate that the therapeutic measures adapted to one class of cases or the eariler stages of the disease are not of equal value in all varieties, or the later stages.

Study with me the natural history of tubercle wherever situated. Whether caused by the growth of the tubercle bacillus itself, or the ptomaines produced by the development of these micro-organisms, a more or less modified granulation-tissue results which, from its lack of proper blood supply, or the effects of the ptomaines, undergoes coagulation-necrosis, in whole or in part.

What further changes are possible? And can we take a hint from them to guide us in our therapeutic measures? Under favorable circumstances, the bacilli being few in number or dying out early from increased resistance of the tissues, however induced, the caseated mass is removed by absorption for the most part, leaving behind only the inorganic portions, perhaps increased by some infiltration of lime salts, nothing but a cretaceous mass remaining encapsuled by connective tissue and of no further pathological moment. Under a still more favorable environment, with the cessation of the cause, the granulation-tissue, in whole or in part, carries out what may be termed its normal function, being converted into scar-tissue. The therapeutic lesson to be learned will be specifically mentioned later on, but must be apparent to you without special explanation.

If, however, the resistance of the surrounding tissues to the germs is not sufficient to destroy them, or the exhaustion of nutritive materials for their growth does not occur, the coagulation-necrosis is followed by a caseation which, instead of becoming encapsulated by an environing growth of connective tissue, goes on to liquefaction, forming a so-called "cold abscess"—yet not containing one drop of pus unless secondary infection has taken place—its walls, however, consisting of a layer of more or less active tubercular tissue. Let secondary infection with the microbes of suppuration now ensue and this "cold abscess" will open, the tubercular matter will be evacuated, a sinus usually remaining lined with tubercular granulations; this is nature's eliminative treatment. In certain favorable cases the intensity of the inflammatory process is such that all the infected tissues are destroyed and evacuated; this is another method by which nature cures by the destruction of tubercular tissue, not by its organization into harmless, permanent tissue.

It is important to recognize the fact that a tubercular infection of a joint must, in the nature of the event, practically always be secondary to tuberculosis elsewhere; the primary point of infection may be some trivial lesion through which the germs have gained access, the lesion itself remaining unaffected, but the germ-charged blood current too often deposits the morbific cause in the epiphyseal regions of the young bones, where the normal conditions incident to their growth are peculiarly favorable for the lodgment and multiplication of microbes, even in the absence of what is so common, viz., some trivial injury, which, by interfering with the proper rate of the circulation through the injured part, tends to promote the dropping out and accumulation of germs of all kinds. A second fact to keep clearly in mind is that before puberty, in a large majority of cases, both epiphyses entering into the construction of the diseased joint are involved. The process is often recognizable as an embolic one, a minute mass of germ-laden granulation-tissue being found plugging the vessel, or by the mural implantation of a few germs a thrombus has formed blocking the lumen of an arteriole, producing those wedge-shaped sequestræ so often found. Conversely, in the adult, tubercular joint trouble is primarily of the synovial form, the bones becoming secondarily involved.

The most superficial clinical study of surgical tuberculosis demonstrates the truth of the deductions drawn from our brief investigation of the subject, viz., that

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*Presented at the twenty-seventh annual meeting of the Michigan State Medical Society held at Flint, May 5 and 6, 1892.

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(1) 1932. J. Am. Med. Assoc. 98, 1429
1938. Nutrition Abstracts and Reviews 8, 281.
1938. J. Am. Med. Assoc. 110, 650.
1940. J. Am. Diet. Assoc. 16, 891.

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*(Continued from Page 10)*

not only is tuberculosis a curable disease but that it is curable in more than one way. The surgical mind has arrived at the acceptance of this view only by the adoption of a series of tentative procedures: First, the limb formerly amputated for white-swelling was treated by a resection of the articulation; then the lesser joint troubles for which resection had been unhesitatingly employed—with its destruction of all mobility, its frequent total arrest of growth from the removal of the only partially diseased epiphyses—began to be cured by atypical resections, then by erasion, and now, finally, the wisdom of a resort in all cases to the removal of the disease solely by mechanical measures is questioned, and the attempt is made to aid nature in her more successful methods of dealing with tuberculosis.

The results achieved by these latter methods are those to which I desire now more especially to call your attention, although, later on, where these fail or are contra-indicated, I shall endeavor provisionally to indicate the classes of cases to which erasion, excision, or even amputation are still the only methods applicable; in other words, while a strong advocate of modern scientific and conservative measures, I am not bigot enough to fail to recognize that, owing to seeing cases late in the disease, or to the failure of the patients in continuing treatment for a sufficient length of time—even when skillfully initiated by the surgeon—many cases must still remain where the older, more radical, methods will be demanded.

Manifestly then, if my statements as to nature's methods of cure are correct, that one most desirable is the organization of the tubercular products, in whole or in part, into harmless scar-tissue. If then, early in the process, we can destroy or render inert the germ or its products which prevent the transformation of the granulation-tissue into a stable tissue, we shall secure all, and more, than can be effected by the most radical operation, and that, too, without danger to life, to parts, or functions which are only damaged, not utterly destroyed.

What remedy shall be resorted to which theoretically, at least, can effect this? While many rivals have been proposed from time to time, iodine still holds the first place; but it must be iodine which is so slowly set free from its combination that it shall prove neither irritant to the tissues nor toxic. Iodoform best fulfills these requirements and was first suggested for this purpose by Billroth and Mikulicz in 1881. Soon after this, Verneuil called attention to its efficiency in certain cases of tubercular abscess, contending that it destroyed the germs of the disease, converting a specific into a simple disease-process. Since then Moorhof in 1885, Krause, Bruns, and a host of other noted observers, have recommended and successfully employed iodoform in tuberculosis of the joints.

More than twenty years ago Barwell, when describing the natural history of tubercular arthritis, showed that among the masses of granulation-tissue into which ligaments, synovial membrane, and the other joint-structures had been converted, it was quite common to find numerous areas where transformation into scar-tissue was occurring, and pointed out that in this way a cure was effected when unaided nature was able to cope with the disease. Until a more modern pathology demonstrated that this granulation-tissue was the result of a living, multiplying germ and its products, there was neither motive nor incentive to induce observers to seek for a remedy, which, by removing or neutralizing the cause, destroying this tubercular granulation-tissue, or preventing its conversion into a permanent tissue, should enable nature to do what she was so often successfully striving to accomplish under the most adverse circumstances. It is true that Bruns and Nauwerk, examining portions of the wall of tubercular abscesses treated by iodoform injections, have described certain microscopic appearances suggestive of the entire disappearance of the military tubercles by destruction of the bacilli, fatty degeneration, and liquefaction of the cells. While this may, and probably must, be true for the focus of the tubercular lesion, both clinically and pathologically the condition of joints prove, I contend, that my description of organization of the granulation-tissue which has not become devitalized by the ptomaines, is in the main correct.

But will such measures avail when areas of caseation exist? Certainly, for in many instances have we not seen that the unaided efforts of the tissues are capable of either absorbing the liquefied portions, encapsulating what remains, or of removing all but the harmless mineral salts? Morever, when studying the method of applying the remedy, it will be clear that, in many instances, most, if not all, of the liquefied caseated tubercle is actually evacuated before the introduction of the remedial agent, which then has to deal only with comparatively unaltered tubercle-tissue. A review of the nature and action of the various substances which have been employed, and the gradual evolution of the present methods of treatment so well illustrate the manner in which modern science attacks and conquers difficulties, and so clearly demonstrates the fact that to no one man belongs the credit of this great therapeutic victory, that I cannot refrain from repeating in a condensed form Senn's admirable résumé of the subject.

Many years ago Brainerd of Chicago, after emptying the joint with a trocar and canula, injected either pure tincture of iodine or tincture of iodine variously diluted with a solution of iodide of potassium, but the local and general reaction were too great, the remedy failing to do good, and so frequently aggravating the conditions as to rule it out for the future. A two to three per cent solution of carbolic acid was next employed by Hueter, both as an intra-articular and parenchymatous injection, repeated every other day. This remedy served a better purpose than the former, but it, too, with arsenious acid and corrosive sublimate, both advocated by Cavagni, have now been abandoned. Kolischer in 1887 reported numerous cases successfully treated by parenchymatous and intra-articular injections of an acidulated solution of calcium phosphate, employing for this purpose a Pravez syringe. Upon the other hand, E. Muller has reported negatively upon the action of this remedy from experience gained in the Tubingen clinic.

Owing to the action of zinc chloride inducing marked fibroid changes in softened tissues, Lannelongue has quite recently employed parenchymatous injections of this agent at the periphery of the tubercular process, in order to effect encapsulation of the focus, imitating one of nature's methods of cure; thus, four or five injections are made of eight or ten drops of a ten per cent solution around the periphery of the sub-quadricipital synovial pouch of the knee-joint. Although L. Sayre antedated him by thirty years, Landerer published in 1888 the results obtained by the employment of balsam of Peru in tubercular affections; the good effected he attributes not to any antitubercular power, but to its stimulating effect so increasing the vitality of the tissues as to render them proof against the tubercular bacillus. This balsam can be employed as a 20 per cent ethereal solution for injecting into fistulæ, but for parenchymatous and intra-articular use a sterilized emulsion of one part in four of oil of sweet almonds, rendered alkaline by a 0.07 per cent solution of sodic chloride, should be employed. Some caution is requisite in the use of this drug, as Bruns and others have called attention to its irritating effects on the genito-urinary tract.

Naphthol-camphor was experimented with by Perier at the Lariboisiere Hospital and later highly vaunted by Reboul as very slightly toxic, decidedly antiseptic,

*(Continued on Page 14)*

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and antibacillary; moreover the drug is absorbed and can be detected in the urine for eight days after ceasing to employ it, which fact seems to indicate that this remedy may serve to prevent relapses by its prolonged action. From 50 to 100 grams of naphthol-camphor have been employed as an injection in joint-tuberculosis and cold abscesses.

Finally Billroth, Mikulicz, Verneuil, Moorhof and others introduced, as has already been said, iodoform as superior to all other remedies. We should anticipate this decision from the results of experimental research, because Troje and Tangl have demonstrated that iodoform destroys the bacilli if kept in contact with them in sufficient concentration for prolonged periods, while, when employed in less quantity, the virulence of the germs is diminished; Gosselin's experiments and observations tend to prove the same thing.

How shall iodoform be employed? First and last, that which demands most care and is absolutely imperative, is asepsis. The best preparation of iodoform is a ten per cent mixture of the drug in equal parts of glycerine and water, the whole carefully sterilized by boiling for five minutes in a water bath; never use anything but a recently sterilized preparation. Olive oil will also serve as a menstruum, the same proportion of iodoform being employed and similar precautions taken in sterilizing the mixture by heat; but the first formula is the better. The field of operation must be carefully cleansed by the use of ether or turpentine one part, alcohol seven parts, followed by soap and hot water; a corrosive sublimate dressing should then be applied to remain some hours, preferably over night. If doubt exists as to the thoroughness of the asepsis, or when time does not suffice for the prolonged application of an antiseptic dressing, just before puncturing I prefer to again cleanse the parts with a solution of potassium permanganate followed by a saturated solution of oxalic acid, and, after this, by free douching with a mercuric solution.

The trocar and canula have been sterilized by heat, the joint should be carefully punctured obliquely at a safe point, first drawing the skin to one side, then all fluid, if any such be present, is to be evacuated by pressure and the articulation repeatedly and thoroughly washed out with a recently boiled three per cent solution of boric acid until the fluid returns clear. When no fluid exists this preliminary washing should be omitted. From one to eight drams of the iodoform mixture should then be slowly injected into the joint by means of a sterilized syringe, the canula withdrawn and the puncture sealed with aseptic cotton and collodion. An antiseptic gauze pad had better be placed over the collodion dressing and held in position by a bandage for a few days. Diffusion of the iodoform throughout the joint is to be secured by kneading the parts and by passive motion. No fixation of the articulation is necessary unless motion causes marked pain, although I am in the habit of keeping the joint quiet at first.

How often should the injection be repeated? As the action of the iodoform must be continuous, the intervals must depend somewhat upon the probable extent of absorbing surface and the amount of iodoform used at each injection; sometimes the injections require repetition as often as once in every eight days, in other cases once in six weeks will suffice.

Where intra-articular adhesions exist, cutting off a portion of the joint-cavity, the drug cannot of course reach all the diseased portions; again, when the broken down tubercular masses cannot be evacuated through a large canula, nothing can be effectually done unless free incision into the joint be made, its interior thoroughly curetted, cleansed by careful rubbing with iodoform gauze, the wound accurately sutured, and then the injection be made, as has been done with such great success by Billroth.

It is hardly necessary to say that if abscess formation is imminent and the skin has become thinned, the puncture must be made at some point where the integument is perfectly sound. Having said that the trocar should be introduced into each articulation at a safe place, it will be proper here to specify these points: thus, for the wrist-joint, enter the trocar just below the styloid process of the radius or ulna; for the shoulder, access may be had by entering the joint either internally or externally to the coracoid process of the scapula, or better, behind, just where the scapular spine expands into the acromion process; for the hip-joint, enter the trocar just above the trochanter major with the limb adducted and inverted, carry the instrument a little forward as it is thrust onward until the head of the femur is reached, when, by forcibly adducting the limb, room can be made to pass the trocar into the articulation; the knee can be punctured upon either side of the patella; in case of the ankle, the trocar must be entered in front below either malleolus and then by directing its point upwards the joint will be reached.

I shall not adduce extended statistics to prove the efficacy of the iodoform treatment, but shall merely give the results obtained by a few representative surgeons, such as Bruns, Krause and Trendelenburg abroad, and Senn, in America, adding my own hearty endorsement of the latter's opinions, although, so far as I can gather, I had employed the method before he had commenced its use himself, having been led to do so by having seen the results in a patient of his predecessor, the late Chas. T. Parkes.

Bruns cured eighty out of one hundred cases of tubercular abscess, while he had a similar success with fifty cases of tubercular arthritis, in the course of four years. Krause, in the course of two years, submitted to the iodoform treatment thirty-six of tuberculosis of the knee-joint, thirteen of the hip, six of the tarsus, five of the wrist and one of the elbow. When reported, the treatment had been completed and a cure had been effected in the following cases, viz., of the knee, fifteen; of the hip, four; of the tarsus, one; of the wrist, three. Of one hundred and thirty-five cases of all grades of severity treated by Trendelenburg, sixty-eight per cent were stated to have been favorably effected. Senn has also reported some admirable results, and my own experience has led me to repose an ever increasing confidence in the efficacy of iodoform in articular tuberculosis.

Is this plan of treatment solely productive of good without any attendant risks, at the worst merely failing to effect a cure? Certainly not; but the risks are insignificant compared with those of the ordinary operative interference, so commonly resorted to, while nearly all are avoidable by taking proper precautions, as is shown by the experience of Bruns, presently to be quoted. Death during the operation occurred in a case of Boeckal's, where the abscess communicated with the subclavian artery. Severe hemorrhage followed the injection in three cases of König's from arterial erosion, but was arrested by ligaturing respectively the gluteal, the deep femoral, and external plantar arteries. Lindner also had two fatal cases of hemorrhage, the blood coming in one from the femoral artery and in the other from the iliac vein. All these accidents would have been equally noted if incision with scraping, erasion, or excision had been practiced. Dollinger and Trendelenburg, as well as others, have observed gangrene of the superjacent parts and iodoform intoxication from the employment of the ethereal solution, but the first objection does not hold good for the glycerine or oil formulæ; while with proper precautions the employment of the same menstrua practically does away with the risks of intoxication, although Heusner reports this accident from an intra-articular injection in a child containing only 0.1 of a gram of the drug, and Bramann another from 0.2 of a gram, although later

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*(Continued from Page 14)*

the same amount was employed with impunity. The lesson to be learned is clear enough, viz., never to employ any but an oily or glycerine vehicle, and not to exceed thirty grains of iodoform for the first injection in an adult, with much less in the case of a child. That such precautions will prevent accidents is proved by the experience of Bruns, nothing unpleasant having occurred in one hundred and eight cases treated by him. Of course, neglect of the strictest antiseptic precautions will often determine true suppuration in, and destruction of, a joint, and perhaps the loss of a life, but that is an entirely preventable accident.

But some will say, "Are operations never necessary? Will use of iodoform entirely supersede the knife?" Manifestly not, for, unless employed in the comparatively early stages of the disease, iodoform can do nothing more than possibly render the field of operation less tubercular and therefore make it more likely that all diseased tissues will be removed by the knife. Even if apparently seen at a stage when, efficiently employed, iodoform should effect a cure, certain cases will progress from bad to worse, requiring erasion, atypical resection, or typical resection according to the condition found after incision, the former two being probably more generally applicable to the cases developing in adults, which are usually primarily synovial, the osseous lesions being secondary and therefore more limited than in the case of children, where the reverse commonly obtains. When, then, a three months' faithful trial of iodoform fails to effect improvement, which in its incipiency should be indicated by shrinkage of the capsule, some operation is probably indicated, this decision being arrived at upon the same ground as in other cases where the more usual forms of treatment by rest, etc., have failed. Again where sinuses are present or form, with evidences of amyloid changes in the viscera, or where lung tuberculosis is present, is threatened, or develops during the course of treatment, in my judgment amputation, and amputation only, is indicated as a life saving measure, even in the face of decided local improvement from the treatment.

In conclusion, let me beg all of you who have to treat such cases, to give this method a fair and impartial trial, and that, too, upon such an extended scale as will eliminate the chance of error, not despising any of the minute precautions upon which I have insisted, and I am convinced that you will, from the scepticism which I myself first felt, pass on to the firm faith I have attained to, that by a proper choice of cases, and by educating the profession and the public, in the near future erasions and excisions for tuberculosis of the joints will be as rare as amputations for these maladies have already become.

MSMS

## MEDICAL DEFENSE—ITS ECONOMICAL VERSION

With our national economy geared to defense in its total aspect, there is danger that medicine may become engulfed in the flood waters of government regimentation. "Changing trends," a term used nonchalantly in erudite circles a few years ago, have gradually yet definitely slipped into the realm of American history and are therefore no longer trends. They have become facts which, even if hesitatingly and grudgingly, some of us almost take for granted. The process was, one must admit, slow and unobtrusive. Nothing was forced on us, no program was inaugurated in the state without the approval of organized medicine.

Neither time nor society is static. We are now faced with "changing trends" of a new variety, with many angles and innumerable ramifications, all affecting in one or a number of ways the status of the physician in his daily practice. Problems no longer present themselves insidiously; rather they are thrust upon us from time to time without warning, without provocation, all demanding quick decision and prompt execution. The officers of the Nebraska State Medical Association are almost daily in conference with representatives of the various governmental, private and civic agencies each with its individual plan, each demanding "coöperation" in the name of national emergency.

And this is precisely where the danger is greatest. Unselfishness and devotion toward the defense of our country is the solemn duty of every citizen. As individuals and collectively, physicians, now as in the past, stand ready to make personal and economic sacrifices with an undaunted belief in the democratic form of life. We must remain on constant guard, however, to retain our principles of professional freedom and independence when the emergency is over. Organized medicine must stand prepared to meet the challenge of social and political crackpots who, if they found it possible, would not hesitate under guise of total defense, to force on the public a system of medical care foreign to its desires, its tastes, or its needs.

The physician of today has a double patriotic task: To aid his homeland in the defenses against war and to exercise all his resources for retaining his freedom in order that he may continue to serve his patients without interference when present international insanity abates and peace is again established among supposedly civilized human beings.—*The Nebraska State Medical Journal,* October, 1941.

MSMS

## THAT BILL IS IN AGAIN

Under the headline "New Zealand Gets Free Doctor Plan," the New York *Times* of September 8, 1941, describes a bill now before the House of Representatives by which national free medical care estimated to cost $5,000,000 a year would be visited upon the people of New Zealand. Medical fees would be paid from the social security fund at the rate of $1.00 for an office visit, $1.25 for a house call, and $0.25 a mile for travel over twenty miles. The government introduced the bill.

We have commented on the previous bill which went into effect March 1, 1941. The Ministry of Health, which is sponsoring this new bill, must be credited with persistence if not with a sense of humor. To quote the *Times:* "One clause provides that the fees must be accepted as full payment and that a doctor may not demand nor be entitled to sue for further fees except by permission of the Ministry of Health."

Health Commissioner Nordmeyer stated before the Health Committee of the House, it is reported, that "the government was fixing one fee for all services though he said the government *presumed* these would be the best the doctor was able to render . . ."

One admires the delicacy of feeling of the Minister who, when one Representative called the measure "coercion," expressed regret that the word was used. Asked by another whether the bill was intended to punish the doctors for not agreeing to free medical care, Mr. Nordmeyer said he regarded it not as a penalty but as a concession to the doctors. He was unable, he said, to imagine any doctor refusing when someone asked what would happen to a physician if he refused to be dragooned.

It is evident from the trend of events in New Zealand that an end is sought to all private medical service. The government can apparently muster sufficient votes to pass the bill. Short of a general strike which public opinion would not tolerate "the doctors appear," says the *Times,* "to have no weapon to oppose the measure." And that seems to be that.—*New York State Journal of Medicine,* October 1, 1941.

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## CHOICE OF ANAESTHESIA IN EMERGENCY SURGERY

Selection in anæsthesia for Emergency Surgery is important because the patient is not prepared, often has a full stomach, and may be severely shocked. Consideration is suitable now on account of *war circumstances.* The following subjects are discussed: Shock, premedication; regional anæsthesia (local, block and spinal); general anæsthesia (inhalation and intravenous); deleterious actions of anæsthetics; methods of anæsthesia; and analeptics, of which a synergistic mixture of ephedrine and pituitary extract is recommended. *Re* inhalation anæsthesia, special mention is made of the closed intratracheal technique, the absorption of carbon dioxide, and the use of cyclopropane. Short-acting barbiturates are very suitable for war surgery. It is the anæsthetist's selective duty carefully to manage the progress of anæsthesia, and, as well, to have a hand in the immediate postoperative care: the use of fluids, of oxygen and of drugs.—Wesley Bourne, M.D., Montreal, Canada. (See page 35.)

## COARCTATION OF THE AORTA

A case of adult type of coarctation of the aorta not associated with any other congenital lesion is presented in a male of fifty years of age who showed right axis deviation in his electrocardiogram and a markedly dilated and hypertrophied right heart. The patient had shown signs and symptoms of a left ventricular failure to be expected with coarctation of the aorta and associated arterial hypertension. Hence, after ruling out many pathological entities at post mortem, it was concluded that his right ventricular failure with right axis deviation of the electrocardiogram and hypertrophied right heart must have been a natural sequence from the left ventricular failure.—Hugh Stalker, M.D., F.A.C.P., Detroit, Michigan. (See page 40.)

## THE PHYSICIAN IN NATIONAL DEFENSE

The importance of the work performed by physicians in Selective Service and consideration of the causes of rejections at Army Induction Stations with suggestions for improvement is presented by Major Bier. Plans for the education of Selective Service physicians in examination and classification of registrants, with emphasis on psychiatric examinations and scientific nomenclature is stressed.

The present status of national health is viewed by analysis of Selective Service examinations and plans are made for a better health program. This offers a rare opportunity for American medicine to institute long- and short-term planning for the future. This will include pre- and rehabilitation, better preventive medicine, and a study of the supply and demand for physicians throughout the United States, not only during the present emergency, but after the emergency has passed. —Robert A. Bier, Major, M.C., U.S.A., Washington, D. C. (See page 43.)

## THE DANGERS IN BREECH DELIVERY

Fetal mortality at two Detroit hospitals was more than three times as great for breech as for all presentations. Skill in actual delivery can greatly modify fetal loss, but it cannot eliminate all dangers. Premature separation of the placenta, frank breech, prolonged labor, and premature rupture of the membranes are probably unimportant as factors in the increased risk. Prolapse of the umbilical cord, however, with its high mortality, is six times more frequent in breech than vertex. The risk for full term breech babies is high in both primiparas and multiparas, but the increase is much greater in first labors. For premature babies there was an unexplained reversal of this parity relationship. Breech delivery in elderly primiparas, or when the baby is large, or when there is contracted pelvis results in such a high fetal mortality as to justify cesarean section in some instances. Finally, it is emphasized that the additional risks due to breech presentation can be eliminated in the majority of cases by prophylactic external version to vertex.—Ward F. Seeley, M.D., and R. S. Siddall, M.D., Detroit, Michigan. (See page 49.)

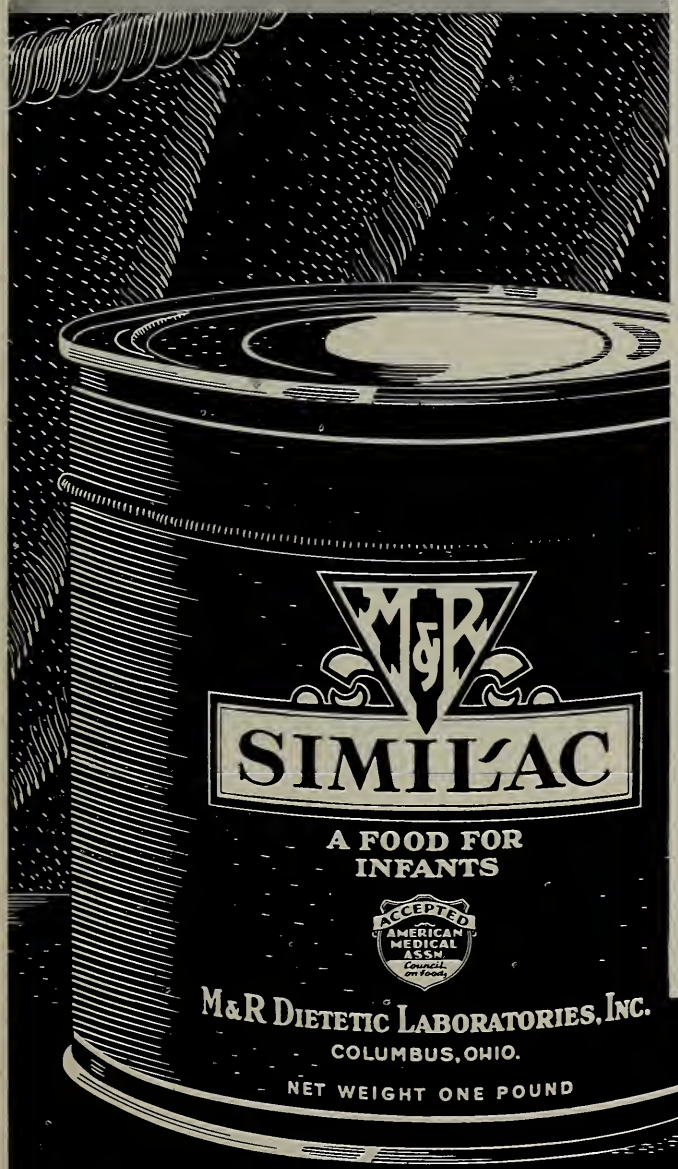
## A PSYCHIATRIST LOOKS AT EDUCATION

A proper perspective of education necessarily includes understanding of interpersonal relationships, development of sense of relatedness of inner self to outside world. If democracy is to survive, youth must be encouraged in an intelligent social altruism. Training is logical thinking and good learning habits are essential. Economic and social realities cannot be glossed over at a time when youth grimly realizes that in these lie the very source of national and international distress. To ignore this is but to drive young people toward destructive agencies which promise to meet their demands. American youth is faced

*(Continued on Page 20)*

# Different

## FROM ALL OTHER BREAST MILK SUBSTITUTES




The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat.* . . . In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk. . . . In Similac the salt balance is altered to approximate that of human milk. . . . Similac, like breast milk, has a consistently zero curd tension — hence it is physically, as well as metabolically, suited to the infant's requirements. . . . No other breast milk substitute resembles breast milk in all of these respects.

* Holt, Tidwell & Kirk — Acta Pediatrica Vol. 16, 1933

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*(Continued from Page 18)*
with the threat of United States' active participation in the war and is asking himself whether the fragment of advance made by our culture is worth defending. There can be no more important task for educationalists than to capture the imagination of the youth of this great nation with a vision of the potentialities of American leadership in world affairs.—LOUIS ADRIAN SCHWARTZ, M.D., Detroit, Michigan. (See page 52.)

## CHEMOTHERAPY IN ACUTE HEMATOGENOUS OSTEOMYELITIS

A case is reported of an acute hematogenous osteomyelitis in a child seven years old in which sulfathiazole was used early. The toxic symptoms subsided rapidly and at no time did surgery seem indicated. The causative organism was evidently staphylococcus. The author agrees that the use of sulfanilamide is preferred in the streptococcus infections of bone. He is of the belief that chemotherapy will play a progressively more important rôle in the treatment of this disease.—B. J. FIELDHOUSE, M.D., Ida, Michigan. (See page 56.)

## ESTROGENIC HORMONE FOR X-RAY BURNS

A preliminary report on the use of estrogenic hormone in oil as a topical application for x-ray burns and ulcers is presented. Experience is limited to three cases but results were rather favorable and worth bringing to the attention of others. Apparently the estrogenic substance stimulated proliferation of new tissue in otherwise indolent ulcers.—CHARLES W. SELLERS, M.D., Detroit, Michigan. (See page 59.)

MSMS

### COUNCIL AND COMMITTEE MEETINGS

1. Executive Committee of The Council, Thursday, December 11, 1941—Hotel Olds, Lansing—4:00 p.m.
2. Child Welfare Committee—Thursday, December 11, 1941—Wardell Hotel, Detroit—5 p.m.
3. Medical Preparedness Committee—Thursday, December 18, 1941—Hotel Olds, Lansing—6 p.m.
4. Midwinter Meeting of The Council—Friday, Saturday and Sunday, January 16, 17, 18, 1942—Hotel Statler, Detroit.

### NEW COUNTY MEDICAL SOCIETY OFFICERS

**Bay-Arenac-Iosco**

President—Fred Drummond, M.D., Kawkawlin
Secretary—L. Fernald Foster, M.D., Bay City

**Calhoun**

President—J. E. Cooper, M.D., Battle Creek
President-elect—B. G. Holtom, M.D., Battle Creek
Vice President—C. R. Hills, M.D., Battle Creek
Secretary-Treasurer—Sherwood B. Winslow, M.D., Battle Creek
Delegate for 1942 and 1943—Harvey Hansen, M.D., Battle Creek
Alternate Delegate for 1942 and 1943—G. W. Slagle, M.D., Battle Creek.

**Dickinson-Iron**

President—James L. Browning, M.D., Iron Mountain
President-elect—Wm. Fiedling, M.D., Norway
Secretary-Treasurer—E. B. Andersen, M.D., Iron Mountain
Delegate—W. H. Alexander, M.D., Iron Mountain
Alternate Delegate—E. B. Andersen, M.D., Iron Mountain
Board of Ethics—C. Menzies, M.D., (3 years), Iron Mountain, W. J. Kofmehl, M.D., (2 years), Stambaugh, D. R. Smith, M.D., (1 year), Iron Mountain.

**Grand Traverse-Leelanau-Benzie**

President—Claude Ellis, M.D., Suttons Bay
Vice President—Jerome T. Jerome, M.D., Traverse City
Secretary-Treasurer—Ben B. Bushong, M.D., Traverse City
Medico-Legal Representative—Fred Swartz, M.D., Traverse City

**Huron**

President—W. B. Holdship, M.D., Ubly
President-elect—C. A. Schuerer, M.D., Pigeon
Secretary—Roy R. Gettel, M.D., Kinde
Delegate—C. W. Oakes, M.D., Harbor Beach

**Kent**

President—Leon Sevey, M.D., Grand Rapids
President-elect—W. B. Mitchell, M.D., Grand Rapids
Vice President—Wallace Steffensen, M.D., Grand Rapids
Secretary-Treasurer—Frank Doran, M.D., Grand Rapids
Delegates—G. Howard Southwick, M.D., Grand Rapids (2 years); A. B. Smith, M.D., Grand Rapids (2 years); Paul Kniskern, M.D., Grand Rapids (1 year); A. V. Wenger, M.D., Grand Rapids (1 year); Carl F. Snapp, M.D., Grand Rapids (1 year)
Alternate Delegates—Leon DeVel, M.D., Grand Rapids; Dan DeVries, M.D., Grand Rapids; Clarence Beets, M.D., Grand Rapids; Ward Chadwick, M.D., Grand Rapids; William Bettison, M.D., Grand Rapids
Defense League Representative—J. B. Whinery, M.D., Grand Rapids

**Oakland**

President—Otto O. Beck, M.D., Birmingham
President-elect—John S. Lambie, M.D., Birmingham
Secretary—Donald Smith, M.D., Pontiac
Treasurer—Arthur H. Young, M.D., Pontiac
Directors—M. R. Huffman, M.D., Milford; Everett Hammonds, M.D., Birmingham; (Two Directors held over: Vernon C. Abbott, M.D., Pontiac, and J. E. Church, M.D., Pontiac)
Delegates—Howard Barker, M.D., Pontiac; C. T. Ekelund, M.D., Pontiac; Vernon C. Abbott, M.D., Pontiac
Alternate Delegates—Robert Baker, M.D., Pontiac; J. W. Christie, M.D., Pontiac; J. E. Church, M.D., Pontiac

**Sanilac**

President—W. A. Gift, M.D., Marlette
Vice President—D. A. Koch, M.D., Brown City
Secretary-Treasurer—E. W. Blanchard, M.D., Deckerville
Delegate—R. K. Hart, M.D., Croswell
Alternate Delegate—H. V. Norgaard, M.D., Marlette

# 260/190

*"The importance of hypertension as a problem of health needs emphasis. High blood pressure is both a common disease and a serious one. Indeed, it appears to be more common and more deadly than cancer."* — Allen, E. V., Medical aspects of arterial hypertension. *Bull. N. Y. Acad. Med., 17,* March 1941.

TREATMENT of arterial hypertension today is necessarily directed in most cases toward relief and not cure. When a cure cannot be effected, or control by rest and dietary measures is impossible, the employment of medical treatment is suggested. Among the various preparations available, Erythrol Tetranitrate offers the advantage of producing a reduction in blood pressure sufficiently prolonged so that administration three times daily may maintain the reduction. It may be prescribed over a prolonged period with sustained effect.

*The vasodilator action of Erythrol Tetranitrate Merck usually begins within about fifteen minutes after administration and persists for a period of 3 to 4 hours.*

## ERYTHROL TETRANITRATE MERCK

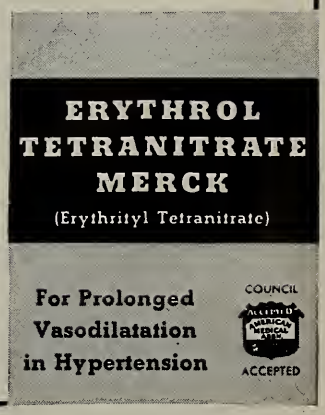
**for prolonged reduction of high blood pressure in arterial hypertension**

*is supplied as ¼ grain tablets in bottles of 50 and 500 • ½ grain tablets in tubes of 24 and bottles of 100 and 500*

**ADMINISTRATION**

**BEGINNING OF ACTION**

**DURATION OF ACTION**

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, November 26, 1941—Bay City—Speaker: Wm. E. Johnston, M.D., Detroit—Subject: "Thyroid Disease."

Wednesday, December 10, 1941—Bay City—Annual Meeting.

*Berrien*—Wednesday, December 17, 1941—St. Joseph—Fourth District Meeting.

*Calhoun*—Tuesday, December 2, 1941—Battle Creek—Annual meeting—Speaker: Mr. Oren Kaye, War Correspondent—Subject: "Personal Experiences in the War Zone."

*Genesee*—Tuesday, November 25, 1941—Flint—Business Session.

*Ingham*—Tuesday, December 16, 1941—Lansing—Annual Business Meeting.

*Ionia-Montcalm*—Tuesday, December 9, 1941—Lakeview—Speaker: Earl W. Brubaker, M.D., Lansing—Subject: "Infant Nutrition."

*Jackson*—Tuesday, October 21, 1941—Jackson—Speaker: Charles W. Waltman, M.D., Field Representative of the American College of Surgeons—Subject: "Cancer Problems."

Tuesday, November 18, 1941—Jackson—Annual Meeting—Speaker: Richard H. Freyberg, M.D., Ann Arbor—Subject: "Some Clinical Aspects of Arthritis."

*Kalamazoo*—Tuesday, November 18, 1941—Kalamazoo—Annual Clinic—Speakers: F. A. Coller, M.D., Ann Arbor, on "Intestinal Obstruction" and John Scudder, M.D., New York City, on "Blood Studies in Shock as a Guide to Therapy."

Tuesday, December 16, 1941—Kalamazoo—Annual Meeting—Speakers: C. L. Bennett, M.D., Kalamazoo, "The Art of Medicine" and Msgr. J. R. Hackett, Kalamazoo, "The Reconstruction of the Future."

*Kent*—Tuesday, December 9, 1941—Grand Rapids—Annual Meeting—Election of Officers.

*Muskegon*—Friday, November 21, 1941—Muskegon—11th District Meeting—Speaker: Fred P. Currier, M.D., Grand Rapids—Subject: "A Psychoanalysis of the Dictators."

Friday, December 12, 1941—Muskegon—Annual Meeting—Election of Officers.

*Oakland*—Wednesday, December 3, 1941—Rotunda Inn—Annual Meeting—Election of Officers.

*St. Clair*—Tuesday, November 25, 1941—Port Huron—Speaker: Harry A. Pearse, M.D., Detroit—Subject: "Obstetrics in General Practice."

*St. Joseph*—Thursday, December 11, 1941—Sturgis—Speaker: Captain Albert F. Stein, M.D., Fort Custer—Subject: "A Medical Officer in the Infantry."

*Shiawassee*—Thursday, November 27, 1941—Owosso—Speaker: J. M. Brandel, M.D., Owosso.

*Washtenaw*—Tuesday, December 9, 1941—Ann Arbor—program on the sulfonamides. "In Acute and Chronic Gonorrhea" by William Valk, M.D., "In Acute Otitis Media and Mastoiditis" by James Maxwell, M.D., and "In Wounds and Peritonitis" by Henry Ransom, M.D.

*Wayne*—Monday, November 24, 1941—Detroit—Speaker: Frederick A. Coller, M.D., Ann Arbor—Subject: "The Healing of Wounds and Their Treatment."

Monday, December 1, 1941—Detroit—Speaker: George Crile, Jr., M.D., Cleveland—Subject: "Certain Problems Associated with the Treatment of Goiter."

Monday, December 8, 1941—Detroit—Speaker: Wm. D. McNally, M.D., Chicago—Subject: "The Use and Abuse of the Barbiturates."

Monday, December 15, 1941—Detroit—Speaker: Richard Cannon Eley, M.D., Boston—Subject: "Nutritional Requirements of Infants and Children."

Monday, January 5, 1942—Detroit—Speaker: Herman L. Blumgart, M.D., Boston—Subject: "Coronary Collateral Circulation; Its Clinical and Pathological Significance."

## MEDICINE AND THE CHANGING ORDER*

On Friday, October 10, newspapers throughout the United States published a report, emanating from the White House, reading in part as follows:

> "President Roosevelt today launched a program to 'salvage' 200,000 of the million young men of draft age who have been rejected for military service. Under the plan, the government will pay medical costs for treatment by local physicians."

The acceptance of this program represents a real and significant gain for the medical profession. It is the latest of a series of victories which, combined, have greatly strengthened medicine's position.

On October 14, 1939—two years ago—the first letters and literature were mailed to physicians from the offices of N.P.C. The establishment of this agency is evidence of the fact that, at an earlier date and to a greater extent than any other group in the United States, American Medicine sensed and began to understand the need for and potential value of *Educational Propaganda.* (See Dr. Fishbein's statement, New Conditions Demand New Techniques.)

In October, 1939, the Wagner National Health Bill was still before the Senate sub-committee on Education and Labor. The American Medical Association was awaiting trial in a Federal Court. Five officers of the A.M.A. and fourteen other physicians of Washington, D. C., were under Federal Grand Jury indictment on a charge of criminal conspiracy to restrain trade.

There were many physicians who were in doubt as to the soundness of our system of medical practice. A powerful lobby, headed by professional welfare workers and with powerful friends at court, was effectively active in state capitals and in Washington. Proposals were made which would have revolutionized the practice of medicine in the United States, including the placing of the distribution of medical care in the hands of laymen or lay groups.

The National Physicians' Committee was established. Three well-defined tasks were undertaken:

1. Clarifying the basic issues to a point of understanding for and within the profession;
2. Promoting the extension of the distribution of high quality medical care;
3. Educating the public to a point of understanding on the basic meaning of and the effective results from our system of independent medical practice.

### Widespread Coöperation

The establishment of N.P.C., supplementing the efforts of existing medical organizations, stimulated medical journals in almost every state to publication of articles and editorial comment on or in connection with the importance and effectiveness of our system of distribution of medical service.

As a new agency it aided in creating widespread discussion of this vital issue within county and state medical society groups. These discussions led to a clarification and understanding of the issue and toward unifying the profession. They stimulated local medical societies to undertake the providing of medical care on a coöperative or a prepayment basis. More than two hundred of these plans have been undertaken; two of them, the California Medical Service and the Michigan Medical Service, on the basis of state-wide operation under medical association sponsorship.

These efforts have been vitally important. They have provided medical care for many thousands of people in lower income groups. More important, they have provided conclusive evidence of—

*(Continued on Page 24)*

*A condensed report on the status of American medicine and the operation of the National Physicians' Committee.

**IPRAL** A safe, effective sedative usually inducing 6 to 8 hours sleep closely resembling the normal from which the patient awakens generally calm and refreshed. Over 15 years of use has shown it to be markedly free from untoward effects in the usual therapeutic dosage.

**HOW SUPPLIED**

**IPRAL CALCIUM (calcium ethylisopropylbarbiturate).** 2-grain tablets and powder form for use as a sedative and hypnotic. 3/4-grain tablets for mild sedative effect throughout the day.

**IPRAL SODIUM (sodium ethylisopropylbarbiturate).** 4-grain tablets for pre-anesthetic medication.

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*(Continued from Page 22)*

the fact that the medical profession has been and is fully aware of and alive to its grave and exclusive responsibility; namely, the providing of the highest possible medical care to all the people at the lowest possible cost. Further, and of even greater value, the experimental efforts have demonstrated that there is no panacea for the problem of medical care. The two vital factors remain—the Doctor and the Patient.

### Educational Efforts

Early in 1939, N.P.C. began its educational efforts. Approximately one million letters were mailed; a series of booklets and reports were issued and distributed to a total of approximately two and one-half million copies. These included The Achilles Heel of American Medicine; the Minutemen of American Medicine; The Priceless Heritage; Statement of Post-election Position, Program and Policy; The Two Essentials for American Medicine; and New Conditions Demand New Techniques.

Two two-page advertisements in color were published in the *Saturday Evening Post.* Full page advertisements were published in nearly one hundred daily newspapers, under local medical society sponsorship.

These efforts were all concentrated on carrying through to the general public an understanding of the outstanding fundamental achievements of American Medicine, such as "The Highest Level of Health Ever Known," and the basic causes of the unusual achievements.

Evidences of the effectiveness of joint efforts toward a common objective are being provided.

In a public address constituting a declaration on Health and Medical Policy, at Bethesda, Maryland, on October 31, 1940, Mr. Roosevelt said, in part:

"In American life the family doctor, the general practitioner, performs a service which we rely upon and trust.

"No one has a greater appreciation than I of the skill and self-sacrifice of the medical profession. And there can be no substitute for the *personal relationship between doctor and patient* which is a characteristic and a source of strength of medical practice in our land."

On July 18, 1941, Mr. Arthur J. Altmeyer, Chairman of the Social Security Board, before the House Committee investigating National Defense Migration, in part, said:

"Some sharp clashes have centered around the proposals for health insurance. There are those who say that such proposals lead inevitably to 'socialized medicine,' a vague phrase. 'Socialized Medicine' is something to which I am opposed if that phrase means a system which destroys the *personal relationship between the patient and his doctor.*"

In a press release of the American Youth Commission of the American Council on Education, Mr. Owen D. Young, Chairman of the Commission, is quoted—in connection with the administration of a proposed Health Insurance plan—as follows:

"Any system of health insurance should include free choice of physician by the patient (subject, of course, to the consent of the physician) and *the same individuality of relation between patient and physician that now exists,* with the single exception of the manner of paying the bills.

"The medical part of the administration should be conducted, as far as possible, by medical men, with only such oversight by them of the individual physician as universal experience has found necessary and acceptable."

Speaking before a United States Hospital Fund meeting in New York City on October 14, Mr. Paul McNutt, Federal Social Security Administrator, said:

"Your voluntary system to help finance charity, medical and social services in hospitals is typically American in conception, in plan and in operation.

"Operated and financed by private enterprise, it is an effective answer to those who insist that the vigor and strength of our way of life has been sapped to the point where we are unable to cope with the tremendous problems which have accompanied the march of industrial development."

Mr. McNutt stressed the necessity for maintaining private enterprise in the support of hospitals.

These statements of medical policy by the highest authorities provide a graphic and practical demonstration of the fact that medicine's fundamental concepts are beginning to be accepted as bases of operations. The President's rehabilitation program, through "local doctors," is a concrete example of their application.

### Is the Danger Past?

On September 24, Mr. Charles A. Togut, speaking before the National Fraternal Congress of America, warned that "state or governmental medicine will paralyze the country's fifty million voters and destroy the private practice of medicine. He said:

"National Defense has catapulted the issue of the 'Nation's Health' onto the front page of every newspaper and onto the burning wires of every radio transmitter. As in nations ruled by the sword, malicious propagandists are piercing the heart of our incomparable system of medical care.

"The Congress of the United States is weighing the destiny of our peoples and of our doctors with numerous authoritarian legislative medical measures. The battle of the century, the government versus the American Medical Association, is but a prelude to the conditioning processes of a National Planned Medical Care Program, unless the American peoples, the doctors, the industrialists, the leaders of labor and capital can smother the most powerful propaganda factory in the world and inaugurate fighting means and methods to unite the leaders of medicine and industry in a progressive Health Insurance Movement."

Today, there is greater cause for fear and a greater need for constant and intelligent vigilance than at any previous time if the independence of medicine is to be preserved.

### Causes

Actual needs of war participation are making necessary revolutionary changes in our social, industrial and economic structures. Quoting from the October issue of the *Reader's Digest:*

"The new bomber program alone calls for creation, within months, of an entire industry greater than the whole automobile industry. Put on top of that a tank industry which will be as large as General Motors. Add to that a ship building undertaking that calls for a plant capacity greater than that of the whole world in normal times."

It is reliably estimated that, during the short period of war effort, more than 3,400 new manufacturing plants have been built or are in the process of building, at a total cost in excess of thirty-nine hundred million dollars ($3,900,000,000.00). Of this new productive equipment, the United States Government has financed or is financing the construction of 29 gigantic plants at an over-all cost in excess of twenty-five hundred million dollars ($2,500,000,000.00). It is estimated that, during the next twelve months, these investments for new plant expansion will total more than 7,000 million dollars.

Tens of thousands of small business enterprises will be liquidated. An actual need has been created for a centralizing of production and the establishment of government controls and operations never before contemplated or even imagined in the United States.

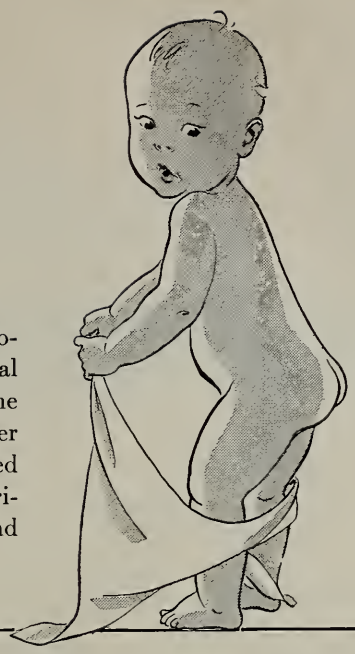
The first obligation—the first responsibility—of the medical profession and each individual physician is to make a commensurate contribution to the defense effort. And it must be kept constantly in mind that, under any circumstances, ultimately medicine must serve under and mesh with the new conditions which will finally emerge from these revolutionary changes.

### The Greatest Danger

Today, in the United States, there are more people gainfully employed, at higher rates of pay, than at any previous time. These generally larger earnings are beginning to influence more prompt payment for medical care. Shortsighted doctors, freed from a part of the sense of financial insecurity, are prone to forget or to ignore the more important issues involved.

*(Continued on Page 26)*

# No Lack in Biolac!



WITH THE sole exception of vitamin C, Biolac provides completely for the formula needs of normal infants throughout the entire bottle period. From the time when infants consume a full quart of formula per day, here's how certain essential food factors supplied by Biolac feedings compare with the minimal nutritional requirements recognized by the U. S. Food and Drug Administration.

| | MINIMAL REQUIREMENTS | BIOLAC FEEDINGS |
|---|---|---|
| PROTEIN (gms./lb. body weight) | 1.4 to 1.8* | 2.2† |
| CALCIUM (gms./day) | 1.0* | 1.0 |
| IRON (mgms./100 calories) | 0.75 | 1.25 |
| VITAMIN A (U.S.P. Units/day) | 1500. | 2500. |
| VITAMIN $B_1$ (U.S.P. Units/day) | 83. | 85. |
| VITAMIN $B_2$ (mgms./day) | 0.5 | 2. |
| VITAMIN D (U.S.P. Units/100 calories) | 50. | 63. |

*The Food & Drug Administration has not promulgated minimum requirements for protein and calcium in infancy. The values shown are those recommended by the National Nutrition Conference.

†When Biolac formulas are fed in the amount of 2½ fl. oz./lb. body weight.

Biolac is prepared from whole milk, skim milk, lactose, vitamin $B_1$, concentrate of vitamins A and D from cod liver oil, and ferric citrate. Evaporated, homogenized, *sterilized.*

**Borden's BIOLAC**

**A BORDEN PRESCRIPTION PRODUCT**

*(Continued from Page 24)*

It is true that this lessening of unemployment has removed one of the basic cause factors which led to the determined drive for the state control of medical service. However, the new advocates of "state control" and new factors demanding greater centralization of governmental authority have actually increased the danger. It is possible that the solution of the medical independence problem will necessitate approaching it from a broader base.

**The New Responsibility**

Now, there is the opportunity and the responsibility for medicine to take the lead in acknowledging the present need, cheerfully assuming its share of the immediate task—on the basis of the emergency—but, at the same time, building the safeguards which will insure ultimately a continuation of the American Way of Life, and incidentally, the independence of the medical profession.

**The Proven Method**

There is but one way. Its potency has been demonstrated by American physicians—*Educational Propaganda.*

The methods and the preliminary educational efforts of the physicians have been unusually—in some respects spectacularly—effective. The methods and the media can be indicated. It is as impossible to explain the "why" of the effectiveness as it is to explain the spiritual factors which enter into the curing of disease. The elements are as subtle as those of the "doctor and patient relationship."

There can be no question but that, if 150,000 physicians fully understood the N.P.C. purpose and fully comprehended the nature and subtlety of its operation, each and every one would desire to participate in its efforts.

**Finances**

The policy of the National Physicians' Committee has been to carry forward effectively segments or parts of a broad program. The extent of its activities has been determined by funds available for operation.

To carry forward all phases of a carefully conceived and well defined plan of nation-wide effort will require substantial funds yearly, and for a minimum period of three years.

It is now fully understood that the carrying on of this vitally important work is the direct responsibility of the medical profession.

During the past two years, individual physicians contributed to the N.P.C. efforts to the extent of approximately $100,000. Individual local medical societies have made systematic canvasses of the membership of their societies respectively, and have provided financial support in amounts ranging from $500 to, in one instance, more than $3,000. 42.2% of N.P.C. funds have come from sources other than physicians.

It has been demonstrated that—

(a) The hit-or-miss method is too slow—is wasteful—and may jeopardize final results through inadequate funds.

(b) This method places the responsibility solely on the shoulders of an enthusiastic minority.

(c) Systematized action by an official committee of the local medical society will—

(1) Produce adequate funds

(2) Spread the load uniformly

(3) Provide not only financial support but the interest and coöperation of the rank and file of physicians.

On October 17, 1941, a check in the amount of $2,635.47 was received from the N.P.C. Committee of the Hennepin County (Minneapolis) Medical Society. Accompanying the letter of transmittal was a list of 224 physicians who had participated in the effort.

Throughout the United States, large local medical groups—including Los Angeles and Alameda Co. (Oakland) Cal.; New Orleans, La.; Houston and Dallas, Texas; Dayton, Ohio; Memphis, Tenn.; Lycoming, Pa.; St. Paul and Rochester, Minn.; have established special operating committees to systematize and unify support for carrying forward, during the coming period of stress, the vitally important educational work of N.P.C.

These coöperating groups are looking forward to similar efforts by every local society in every state. Your understanding, your interest and your support are needed and solicited.

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## LET'S IRON OUT OLD KINKS BEFORE ADDING NEW ONES

Those who read the proceedings of the House of Delegates of the American Medical Association published in *The Journal of the A.M.A.* after the Cleveland session last June, no doubt were impressed with the wide-spread discussion which was given to the question of establishing procedure for special recognition or designation for physicians engaged in general medical practice. In other words, there was a move toward the creation of a certification board for general practitioners.

Nothing very tangible developed from the discussions at Cleveland. Perhaps it's a good thing. Action now, or even in the near future, would, in our opinion, be premature.

The general practitioner is the foundation stone of medicine, his high place in the practice of medicine must be recognized—we believe it is. As some contend, there may be a need for the certification of these engaged in general practice, although one finds many who will debate on the negative side of that issue. However, in our opinion, the time is not ripe for such action if for no other reason than because the mechanisms which have been created for the certifications of the specialists are at present far short of perfection. As a matter of fact, the functioning of some of the certification boards is being subjected to severe criticism. Substantial readjustments in the workings of those boards is inevitable. Some of them will fail to survive unless they modify their procedures.

*The Journal of the A.M.A.*, in an August 30, 1941, editorial, intimated that all is not well on the certification front and hinted at some of the apparent deficiencies. Here is what was said in part:

"The medical profession itself has assumed responsibility for adequate training of specialists. Moreover, it has recognized the need for establishing mechanisms by which the public may be able to distinguish those who are competent from those who are merely "self-anointed." Fifteen examining boards are now functioning, representing as many fields of medicine. These boards examine candidates and issue certificates to those who are found qualified in their respective branches. Before examination the boards require a substantial period of preparation.

"Primarily, the process of certification exists in order that physicians, patients, hospitals and others may be able to identify the well trained and fully competent specialist. The conduct of these boards should never be such as to cause them to be regarded as a means of creating, for limited practitioners, a monopoly, or of protecting them from competition. Not only would certification in the specialties lose its significance if the public and the profession came to regard it merely as a measure designed to increase the influence and incomes of a small self-interested group, but the result would be inevitably the elimination of the present voluntary mechanism and the substitution therefore of some process under public control. Some of the examining

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boards demand that all candidates for examination limit their practice exclusively to the field in which they seek to be certified. Such exclusiveness adds nothing to the candidate's ability, which is the qualification about which the public is concerned; indeed, such limitation may interfere seriously with provision of competent medical services. A board should never adopt or enforce in practice peculiar requirements related to other qualifications than the ability and integrity of the physicians who submit voluntarily to examination.

"Power is the most delicate of all the forces that man may employ; its misapplication in what is still an experimental stage in the development and functioning of the certifying boards may turn it upon them to their own harm."

Members of the profession may disagree as to whether there should or should not be a certification board for general practitioners. But, we believe, all must admit that present kinks in the administration of some of the existing certification boards should be ironed out before any new board is established.—*Ohio State Medical Journal,* October, 1941.

## SIX MONTHS OF STATE MEDICINE

During recent years bills have been introduced in nearly all of our state legislatures, aimed to establish some form of socialized medicine. These bills have been defeated or pigeonholed. Last fall, however, Washington inaugurated a limited form of state medicine, not through legislative action but from the passage of an initiative bill by a majority of 100,000 votes, favoring an old-age pension measure which became effective April 1.

This bill provides a pension of forty dollars per month for all citizens who have attained the age of sixty-five, subject to certain qualifications as to additional income, possession of property and other features. A portion of the pension is supplied by the federal government. One section of the bill provides for free medical and dental services for the beneficiaries. The pensioners are permitted free choice of doctor and dentist from legally qualified practitioners. The attorney general has ruled that "doctor" includes doctors of medicine, osteopaths, chiropractors and chiropodists, thus excluding certain groups of drugless healers. At present the beneficiaries number about 60,000 who have qualified during the past six months with expectation of increase during coming months.

On adoption of this bill the State Department of Social Security, under which it will be administered, appealed to Washington State Medical Association for advice concerning the medical and dental care of the beneficiaries. The setup adopted places the medical and medical and dental care under a State Medical-Dental Board, including four physicians, two dentists and one nurse, with a local board in each of the thirty-nine counties, comprising two physicians, one dentist and a representative of the county welfare department. When the actual care of patients came under consideration, there was only one available means of dispensing this service. It was realized that the existing county medical service bureaus, with their experience extending over a period of years, could immediately administer the new service, and the care of patients was placed under these organizations, thus eliminating lay supervision of medical service, which has been a threatened menance whenever state medicine has been under consideration.

In addition to the medical care of the beneficiaries, the necessity has been recognized of a supervisor over hospitals, infirmaries, sanatoria and other forms of administration. Last month, in order to provide for this, Dr. James M. Flude, recently a resident of Los Angeles, was appointed Medical Supervisor of the State Department of Social Security. His responsibilities will include work with the state and county medical-dental boards in connection with medical services to recipients of old-age assistance. From its experience in development of the public assistance program over recent years the Department of Social Security felt that appointment of a medical man to fill this position was highly desirable. Dr. Flude, besides many years of experience in private practice, has for nine years been western field representative for the Cancer Control Committee.

Financial support of "Old Age Assistance for Senior Citizens" will be maintained by a suitable appropriation for the biennium, of which $5,400,000 has been assigned to maintain medical and dental services for the recipients, including hospital care, appliances and all other provisions. Of this amount $2,700,000 will be devoted to payment of medical bills. This money is to be allocated to the different counties in proportion to their respective number of patients. Supervision of medical attention and payment of physicians' fees in accordance with an established fee bill are functions of the medical service bureaus. Assignment of these responsibilities to the bureaus is a distinct recognition of their efficiency and stability as demonstrated by the results of their administration in past years. Whether or not this free medical and dental service to a portion of the citizens of the state is prophetic of further establishment of state medicine is a question worthy of consideration. What will be the outcome only time can tell. It is stated that during its period of existence the experiment has proceeded satisfactorily. It is certain that this limited form of socialized medicine is an established institution in the State of Washington.—*Northwest Medicine,* October, 1941.

## BIRTH CONTROL

In the speech made by Canon Trowbridge of Massachusetts at the 25th Anniversary dinner in New York, he made an eloquent appeal for action. (*The Churchman,* in its November 1 issue, gives two full pages to the addresses made at the celebration by Mrs. Sanger, Canon Trowbridge and Lawrence Fernsworth.)

"Now, when, not only in Massachusetts and Connecticut," said Dr. Trowbridge, "but also in Michigan and Kentucky and, more recently in New York, that opposition has become more active, we must be prepared to meet it with renewed determination.

"We who believe in birth control think of it primarily as a public health measure. Of our own accord we would never have raised the religious issue because we believe so strongly in religious freedom, in religious tolerance and in religious harmony. We never have sought—and, I hope, never will seek—to stir up a religious controversy in our support of this cause. But when controversy is forced upon us by the open opposition of certain representatives of the Roman Catholic Church, then we are prepared to meet it upon moral and religious grounds.

"We believe that the family is the basic religious unit and that any movement or method which manifestly improves the health and happiness of the home deserves the support of religious people . . . We believe that Planned Parenthood insures to every child the basic human right to be born both well and wanted.

"We cannot find in the teaching of Christ any suggestion that He would oppose any effort to help the heavy-laden. But we *do* find in that teaching a series of warnings to the ecclesiastical leaders of that day who wouldn't lift a finger to touch the burdens that they had loaded upon their backs. We *do* find in His teaching these solemn words: 'It were better for a man if a millstone were hanged about his neck and he were cast into the sea than that he should offend one of these little ones.' We believe that it is an offense against a child to condemn him to being born into a home where it is impossible for him to be well cared for . . ."

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Mild pathological depressions may accompany a variety of clinical syndromes. In addition to prescribing whatever forms of therapy are indicated for the individual condition, it may also be advisable to treat the underlying or concomitant depression.

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## THE NATIONAL HEALTH

A LOT of draftees have been rejected because of minor physical defects, so the compulsory repair of as many of them as possible has been ordered. This is all to the good, we think—one of the numerous ways in which the draft can be made to work widespread benefits.

However, when the politicians go on to talk about a national health program to include practically all of us, it sounds to us like hashish. Americans are too fond of gypping such government ukases, as was proved for all time, we thought, by the prohibition experience.

We think the national health can best be improved in the ways in which it has been improved for the last 35 or 40 years. We mean chiefly by individual efforts and health study—don't eat too much; don't eat crazy food combinations; see your dentist at least twice a year; take reasonable exercise; be moderate with your liquor, tobacco and other indulgences; act your age; get a full physical checkup once a year from a reliable doctor; above all, don't worry to much about your health.

These individual efforts should be supplemented by prudently managed group hospital insurance plans, more and more community attention to hospital services, sanitation, parks and playgrounds, care of school children's teeth, free school lunches or milk, the spreading of information about venereal-disease prevention and cure, and so on.

In short, we think the national health is doing all right.

And speaking of the draft army, a lot of the boys are learning things they never suspected before about sensible foods and food combinations. As they stream back to civil life, the demand for fruits, fruit juices, vegetables and other health foods ought to soar—which in itself will be an automatic boost to the national health.—*Collier's,* October 29, 1941.

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## ONE MORE RUMOR SCOTCHED

Don't believe all you hear about the bad health of American youth as revealed by the medical examinations for the Army. For the stories conflict and most of them are not true except for one group or some small area. Such wild reports as that forty per cent are rejected for malnutrition, or that eighty per cent fail in vision tests, have led us to go to some pains to get official figures. They show the following:

It is estimated that forty-five per cent of those examined are classed as "unavailable for general military service."

The major cause of rejection is dental defects, found in 18.7 per cent of those rejected. This means that just under 8.5 per cent of all those men examined have bad teeth—and no physical trouble shows any higher percentage.

The next greatest cause of rejection is eye abnormality—11.1 per cent, or about 5 per cent of all those examined.

Next in order come musculoskeletal defects, then mental and nervous diseases. Flat feet, about which you hear a lot, cannot be very prevalent, for of all the men examined, less than 1.5 per cent have feet defective in any way.

So there seems to be little reason to worry about the general physical condition of our young men. Let's devote ourselves to the state of the nation instead.—*Woman's Home Companion,* November, 1941.

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## NEW TAX BILL

Of particular interest to the medical profession should be the new tax bill. It marks the beginning, in all probability, of a series of such tax bills, since at the present rate of spending the government is putting out about twice as much as it is taking in. What the government is putting out falls into two categories: defense and nondefense spending. What we must spend for defense we must spend without stint. Control of such disbursements is no longer entirely within our power; it is dependent upon the event.

But nondefense spending can be controlled. Congress can economize on nondefense expenditures. But what the Congress will do about this seems to depend upon what public opinion demands. With the public debt growing at the rate of ten billions or so a year, it should not be a matter of great difficulty to obtain a quite positive statement of public opinion on this matter. And we believe that such a statement would be favorable to a sharp decrease in nondefense spending.

There is no good reason why this matter of a reduction in nondefense spending should not be discussed by physician and patient with the end in view of recommending to Congress that something be done about it. It is certain that little or nothing will be done unless there is public protest.

This journal is of the opinion that a congressional survey should be made and completed, as soon as possible, of the numerous items of nondefense spending which could be reduced or eliminated. We believe that such an inquiry would have the unqualified support of the physicians of the state. They are aware of the seriousness of the coming tax burden and are willing to assume their share of responsibility.—*New York State Medical Journal.*

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# Choice of Anaesthesia in Emergency Surgery*

By Wesley Bourne, M.D.,
Montreal, Canada

Wesley Bourne, M.D.

*M.D., C.M., McGill University, 1911; M.Sc., McGill, 1924; F.R.C.P., Canada, 1931; D.A. (R.C.P. & S. Eng.), 1938. First Hickman Medallist Roy. Soc. of Medicine, 1935. Lieutenant-Colonel, R.C.A.M.C. Lecturer (Anesthesia) Department of Pharmacology. McGill University. Author of many publications on anesthesia. Member of the American Society for Pharmacology and Experimental Therapeutics.*

. . . ., and with his knife cut forth
The rankling point; with tepid lotion, next,
He cleans'd the gore, and cast a bitter root,
Bruis'd small between his palms, into the wound.
At once, the anodyne his pains assuag'd,
Dried the deep hurt, and stanch'd the sable stream.
Cowper, The Iliad of Homer, XI, 1026.

▪ Nothing in American literature is more admirable than Henry Thoreau's devotion to his principles. So says Granville Hicks in *The Great Tradition.* He further declares that the wisdom of Emerson and the courage of Thoreau might have inspired a nation of heroes. The subtlety of Hawthorne might have guided a generation of craftsmen. But the writers of the period following your intestine war could not bring the glories of the Golden Day into the expansive age. Emulating Emerson, the preacher of sturdy individualism, Whitman became the preacher of self-reliance; to use his own words from his *Song of the Broad-Axe,* he became bard of "The beauty of independence, departure, actions that rely on themselves." It would appear that in Medicine, generally, his voice was heard. How else the many specialties?—behold the personnel! Any one of whom circumscribed within his own line of thought, may easily suffer from pervasive complacency over the importance of his calling and fail to see other factual matters, perhaps of vital moment. Rather would it be better for him to view them all in full perspective. Let him remember such a dictum as that lately given out by L. J. Henderson,[6] of Harvard—"In the medical sciences testing of thought by observation and experiment is continuous. Thus theories and generalizations of all kinds are constantly being corrected, modified and adapted to the phenomena, and fallacies of misplaced concreteness eliminated." We should endeavour, therefore, to determine the procedure of anæsthesia always with the greatest care, but most particularly in emergency surgery.

Selection in anæsthesia for emergency surgery is extremely important chiefly for the reasons that the patient comes to operation without preparation, often with a stomach full of food, and frequently severely shocked. It is appropriate, at the present time, to consider this selection on account of the casualties of war. Continually remembering the *a priori* principle that whatever is to be done must suit the general condition as well as the surgical requirements of a given individual; realizing that the precepts of anæsthesia are not affected by the circumstances of emergency; and resolving assiduously to seek those means in anæsthesia which are especially applicable under the exigencies of emergency, whether of battle or from among the wheels of industry; mindful of these, the physician, the surgeon and the anæsthetist will discuss the case cooperatively and choose the drugs to be used along with the methods of their administration.

*Read, by invitation, at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, September 19, 1941, Grand Rapids, Michigan.

**I shall strive to show that, although men of the fighting services, and, too, men and women of the industries, are of necessity exceptionally fit before an engagement or a bombing raid, they may frequently be most urgently in need of the best attention known to anæsthesia. Furthermore, I shall not fail to consider those emergencies we are called upon to meet from among civilians, male and female, of all ages and in all sorts of condition, including those who suffer definite additional disability over and above that demanding immediate surgical intervention, whether due to violence or acute illness. Whatever the circumstances, they are to be dealt with as they variously obtain. It is not inapposite to say that there is no reason why an otherwise healthy individual who becomes a subject for emergency surgery should not be accorded the highest quality of anæsthesia, conducted by a most capable anæsthetist, especially in times of war. Surely those who are willingly exposing themselves to the dangers of war deserve our best consideration. In words like those of Cicero: with such thoughts before you, no eloquence of any man's is needed to excite your feelings.**

Broadly, choice in anæsthesia is made within the greater groupings of Regional Anæsthesia and of General Anæsthesia, in this, whether it be inhalation or intravenous; while in that, whether "local" or "spinal." It is convenient, at this time, to consider the anæsthetic materials jointly with means of their administration, and I shall intimate their suitabilities to the surgical procedures under varying circumstances regarding the patient's condition.

### Choice of Local Anæsthetic

The drugs just now in favour for producing regional anæsthesia are procaine, metycaine, nupercaine, and pontocaine. In effect, they cause little, if any, interference with the vital processes, therefore, their employment should be encouraged. Although, in execution, local infiltration, field block, the different forms of nerve block, and spinal anæsthesia are found by a large number of surgeons to be tedious and time consuming; yet, as these have become, in many instances, parts of the duties of the anæsthetist, in consequence, not only is the surgeon relieved of some burden, but, through increased individual experience, the dangers are now almost negligible. So long as preliminary sedation has been made complete—concerning this aspect of the question I shall have a word to say presently—the local and block types of anæsthesia may be considered almost ideal for operations on the head, neck and extremeties; and even, in the abdomen as well as the thorax on those rare occasions when spinal anæsthesia may not be carried out on account of the inadvisability of moving the patient. The advantages of spinal anæsthesia are very great, especially on account of the muscular relaxation and the excellent recovery. Digby Leigh and I[8] have shown that, with the exception of blood dilution, the many changes[1] which are apt to take place from general anæsthesia do not appear in spinal anæsthesia. Let it be remembered that some of these changes in metabolism may seriously impede the course of convalescence in the patient who suffers some extensive debilitating lesion.[2] Just now I am very disposed to use percaine for spinal anæsthesia as it lasts longer than any of the others, and I favour the Etherington-Wilson technique for its administration[3,5] as with the sitting posture much less of the drug is required. It would seem that spinal anæsthesia is only contraindicated wherein the fall of blood pressure, which it frequently causes, is to be feared, as in cases of marked hypertension and advanced cardiovascular disease. Such are not likely to be met among war casualties from the personnel of the fighting forces or of factories, but they are being seen among those of civil life in the present conflict.

### Premedication

It is at this conjuncture that I deem it most relevant to discuss the problem of pre-medication, that is, just before quite leaving the topic of regional anæsthesia; and then, it will not be impertinent to interject something about the analeptics, seeing that they are being used so much in this type of anæsthesia. I have come seriously to the conclusion that it is our bounden duty to do all in our power, so thoroughly to subdue the activities of the cerebral cortex, as utterly to induce the prerequisite of salubrious hebetude of the organs of thought. Even in the greatest emergency, without the patient is unconscious, there is time for some persuasive ritual on the part of those in attendance. We read in the Book

of Job,[7] "But I would strengthen you with my mouth, and the moving of my lips should asswage your grief." So wise and sensible talk, uttered in that soft, melodious tone which gives such a peculiar charm to utterances, will inspire confidance and gain reliance prior to or while giving one or more of the sedatives: morphine, dilaudid, a barbiturate such as nembutal or pentothal, avertin, and scopolamine or atropine. Usually, it matters little how these are combined, only one tries to give enough to produce the desired effects, that is, completely to obnubilate all perceptions, and so lessen the shock which comes of fear; effectually to inhibit secretions, and so avoid respiratory obstruction; appreciably to reduce the amount of general anæsthetic, when such is used; and, wisely to cause the induction of anæsthesia to be much easier. Thinking about it in another way, one attempts to give just enough of these drugs to produce the desired effects without too much interference with the respiratory movements, too much depression of the circulation, without disturbances to the oxidation—reduction systems. In other words, unless the subject of emergency surgery is already inconscient, he should have enough narcotic so that it may be said, with Ovid, "the time was come when you could not say 'twas dark or light; it was the borderland of night, yet with a gleam of day."[11] It would make little difference whether the light were crepuscular or like that of "the garden between dawn and sunrise"—the language of James Branch Cabell.

Someone will say that all this savours of being rather intrepid, this argument in favour of "high spinal" and of relatively large quantities of sedatives! No doubt knowledge of the usefulness of analeptics had some influence in the undertaking and the results justify the means, all the more as these were carried out cautiously. But I am firmly of the opinion that analeptics should not be used regularly nor in anticipation of shock. With apparently the sole exception of neosynephrin, they tend to stimulate the central nervous system and to reverse the effects of sedatives, for example, in spinal anæsthesia, when morphine and scopolamine have been given especially to produce their desired actions, I have found that these beneficial effects will be definitely minimized by the administration of a mixture of ephedrine and posterior pituitary extract. Why waywardly undo that which was deliberately done with good reason? It has been shown that analeptics are not needed in spinal anæsthesia by the Etherington-Wilson technique, even in upper chest surgery, in about 70 per cent of cases.[4] A most remarkable synergistic effect takes place when posterior pituitary extract, if you like, in the form of pitressin, is given along with ephedrine.[10] The one supplements and enormously augments the power of the other, the result being more effective than larger individual quantities of these drugs in restoring blood pressure and respiration and in abolishing general collapse. Usually, when these materials are needed, their hypodermic administration suffices. The intravenous avenue is not recommended unless the patient is very far gone. Stimulation of this sort is seldom required in general anæsthesia, in truth, with cyclopropane the circulation might become quite encumbered. Thus we see that antithetical circumstances about the use of depressing drugs on the one hand, and those for stimulation on the other, are prompting our contemplation at one and the same time.

### General vs. Regional Anæsthesia

This, my support of regional anæsthesia, may sound like renunciation of previously published reports in favour of general anæsthesia. Such is not the case. Rather is it like holding categories fluidly, like having flexible standards. It seems true that the intravenous method of general anæsthesia is not suitable for other circumstances than those of minor surgery or for the induction of anæsthesia prior to employing other agents, as is done by Lundy.[9] It appears to be too meticulous a procedure to administer such a drug as pentothal intravenously for an operation of more than twenty minutes, or to give it fractionally. The focal points of attraction in inhalation anæsthesia, the climactic moments of late years are, the closed intratracheal technique,[14] the absorption of carbon dioxide,[12] and the use of cyclopropane.[13] Although ether still has a definite place in surgery, although it may be used with relative safety by those who are not too well experienced, and although, when better equipment is not at hand, it is quite permissible to give ether by the "open drop" method; yet now-a-days all surgical centres, including those that are military, will have an adequate number of anæsthetic machines from which nitrous

oxide, cyclopropane or ether may be administered alone or with one another. The advantages of cyclopropane are already too well known for further prolixity in the matter, but it may be said that there are two splendid combinations: one of avertin by rectum with cyclopropane, following by inhalation; the other of pentothal by vein, with cyclopropane by inhalation immediately after. In each instance a smaller-than-usual dose of the first drug is given, the production of full anæsthesia by cyclopropane is done much more easily than ordinarily, and, there would seem to be some salutary synergistic action. In busy periods, however, the giving of avertin takes too much time. So much for the first cynosure. The second point of attraction: the removal of poisonous excesses of carbon dioxide from the expired air, while it permits in the same case, the continued and repeated use of the anæsthetic gases or vapours, constitutes a worthy economy. The third climactic moment: the closed intratracheal method, precludes respiratory obstruction; obviates interference with some surgical procedures, such as in operations about the head, neck and chest; gives absolute assurance of a plentiful supply of oxygen directly to the lungs; affords quieter breathing and a softer abdomen, although narcosis is not profound; and provides the ready application of Guedel's method of artificial respiration.

### General Considerations

All that has been said, so far, pertains cogently, to the choice of anæsthesia in emergency surgery, and while there is a great deal more, which time does not permit the recounting, a few general statements may be made still pertinent to the subject. Emergency cases manifesting shock are to be handled with the greatest circumspection and with the least possible surgical intervention, until the state of the blood circulation is restored. Any such patient must be allowed to recover fairly well from the early physical condition of depression, before an operation is attempted. During the interval, to conserve energy, one may give small doses of opiates, such as morphine and scopolamine, with vigilance in regard to respiratory depression; one selects to give supporting intravenous fluids, until the pulse rate decreases and the blood pressure goes up considerably; and, one chooses to apply heat for the restoration of body temperature. So soon as these circumstances have been rendered relatively stable, as evidenced from frequent observations on the character of the breathing, the rate of the pulse and the degree of the blood pressure; not until these three seem to be on a satisfactory scale, in relation to one another, should the patient be considered ready for operation. Overlooking the lesser ailments, let us follow a little the course of anæsthesia during operation for a major lesion. Having, in a given individual, chosen the drugs and the methods of their administration, and having produced the required degree of narcosis, it becomes the anæsthetist's selective duty carefully to manage its progress. Before the operation is started, the intravenous administration of fluids ought to be begun and continued throughout at a rate suitable to the state of the blood pressure and character of the pulse. Of the clear solutions, that of glucose in saline should be used in the regional anæsthesia cases, and that of saline only should be given to the cases of general anæsthesia for the simple reason that in these there is invariably a hyperglycemia at the time. Either may be replaced by blood or plasma very readily. Into this fluid stream may be added without delay either analeptic and resuscitating, or sedative drugs momentarily. Restlessness, which occasionally occurs during regional anæsthesia, can be controlled promptly by the injection of a morphine solution into the intravenous tube. Analeptics, too, may be given in this way. When modern machines are used a liberal supply of oxygen is assured during inhalation anæsthesia, but in the spinal procedure one is well advised, regularly and actively, to administer oxygen on account of the depressed breathing, the sluggish circulation, and the dilution of the blood; in other words, on account of the impoverished respiratory exchange and the reduced oxygen-carrying-power of the blood. It becomes the anæsthetist to be alert in these matters and even to have a hand in the immediate after-care of the patient.

In closing this rather discursive account concerning the choice of anæsthesia in emergency surgery, let me say to you that as the *bay-leaf* was sacred to Apollo and hence was conducive to eloquence, so I wish that I could have come to you with a bay-leaf in my mouth and dealt with the matter more clearly. However, in something like the language of the mystic William Blake;

as Chaucer numbered the classes of men, as Linneus numbered the plants, and as Newton numbered the stars, so let the physician, the surgeon and the anæsthetist measure the procedure of choice in anæsthesia.

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MSMS

# Modification of Open Mask for Administration of Vinethene Anesthesia


**By Constantine Odén, M.D.**
**Muskegon, Michigan**

CONSTANTINE L. A. ODEN, M.D.
*B. S., University of Wisconsin, 1918. M.S., New York University, 1920. M.D., Bellevue Medical College, 1920. Attending Surgeon at Hackley and Mercy Hospitals, Muskegon. Nonresident Fellow of the Chicago Surgical Society; Associate Fellow of the American Proctologic Society; Fellow, American College of Surgeons. Member, Michigan State Medical Society.*


▪ VINETHENE is a volatile anesthetic for inhalation which is of great value when one desires a short period of anesthesia with easy induction, good relaxation and prompt recovery, with little or no postoperative effects as nausea or vomiting. Because vinethene is so volatile it has been difficult to use it on the open mask without using a great deal of the anesthetic, therefore the contents of the small bottle is often used up long before the operation is finished and a second or even a third bottle must be opened. Such waste seems avoidable, so the open mask was converted to a semi-open mask by reducing the area of evaporation, permitting enough free air, however, to be mixed with the vinethene when administered.

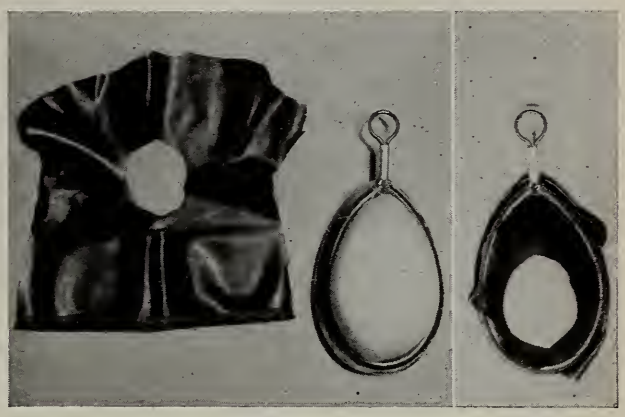

Fig. 1. (a) Hole cut in discarded glove sleeve. (b) Mask. (c) Rubber applied over gauze covered mask.

The modification consists simply in fitting a piece of oil silk or rubber with a center hole about 5 cm. in diameter over the regular gauze covered mask (Fig. 1). We place this over the face of the patient without using any towels to obstruct the entrance of air from under the mask.

Several years' experience with vinethene, using this method, has been very satisfactory. It has been used in shorter cases, as for reduction of simple fractures, dislocations, excision of carbuncles, opening of abscesses, adult circumcisions, and numerous other cases where the use of a shorter anesthetic was indicated.

Conclusion: The modified semi-open mask makes vinethene more easily administered, safe, and much more economical to use.

MSMS

**HEALTH SERVICE ANNOUNCES EXAMINATION RESULTS**

More than 91 per cent of the 873 new full-time students who entered Wayne University in September were given "Class A" ratings in physical examinations just completed, according to Dr. Irvin W. Sander, director of the Student Health Service. "A" students may participate without restriction in health-education activities; others are provided opportunities for mild or non-competitive exercise.

Eighteen per cent of the students examined showed no evidence of physical defects. Commonest impairments involved teeth, the nose and throat, vision, hearing, blood pressure, and kidneys. Students needing care were referred to their family physicians or dentists. —*Wayne University Newsletter,* November 19, 1941.

# Coarctation of the Aorta*

## A Case with Right Axis Deviation of the Electrocardiogram and Auricular Fibrillation with Some Statistics

By Hugh Stalker, M.D., F.A.C.P.
Detroit, Michigan

HUGH STALKER, M.D.
*M.D., Harvard University Medical School, 1924. Fellow, American College of Physicians. Diplomate of the American Board of Internal Medicine. Instructor in Medicine at the Wayne University College of Medicine. Staff member of Harper and Children's Hospitals, Detroit and The Cottage Hospital, Grosse Pointe Farms. Member, Michigan State Medical Society.*

■ COARCTATION (*co* together, and *arctare* to press or make tight) of the aorta is a stricture or stenosis of the aorta usually found at, or just proximal to, the junction with the ductus arteriosus.

Bonnet,[3] in 1903, described two types, the infantile and the adult. The infantile type is a diffuse narrowing, or a complete absence, of the isthmus (that part of the aorta between the left subclavian artery and the junction with the ductus Botalli). This form is commonly associated with other congenital anomalies and is not compatible with adult life, there having been reported in a series of nine cases a maximum of nine months and a mean of eight hours (Abbott[1] 1934). *Adult* coarctation is a constriction of the aorta at or near the junction of the ductus Botalli with the aorta.

Skoda[7] in 1871 suggested that in the adult type a portion of the tissue peculiar to the ductus extends into the adjacent aortic wall, and, as the atrophy of this tissue occurs, it results in constriction or occlusion of the aorta. The process is a comparatively slow postnatal development and adequate collateral circulation has time to become established.

Blackford[2] found that, in a series of 68,000 consecutive necropsies reported by six authors, coarctation of the adult type occurred forty-three times or an incidence of 1 in 1,588 necropsies. Fewer than 350 reports of this anomaly are to be found in the literature and the condition was diagnosed clinically in less than a fourth of these cases. The statistics clearly indicate that coarctation of the aorta exists far more frequently than is clinically appreciated. However, there has been an increase in the cases that have been reported in the last few years.

In a series of 200 cases of the adult type collected by Abbott[1] in 1928, the average age of death was close to thirty-two years with extremes of three and ninety-two years; sixty died of congestive heart failure; forty of sudden heart (two) or aortic (thirty-eight) rupture; twenty-six of cerebral complication and fourteen of bacterial endocarditis. In another group (Abbott, 1931) of 1,000 analyzed cases of congenital cardiac diseases, there were seventy (7 per cent) of the adult type of coarctation of the aorta.[9]

Of the 20,033 medical cases admitted to Harper Hospital during the past ten years, there were 2,719 (13.5 per cent) heart cases. Of these cases seven (0.26 per cent) were diagnosed as coarctation of the aorta—one of congenital coarctation and six of the adult type. The age of the congenital case was four months. The ages of the adult type ranged from seven to fifty-two (seven, twelve, thirteen, twenty-six, forty-eight, fifty-two); there were three females and four males.

Many cases[4] have been reported in detail and the embryology, pathological anatomy, clinical features, pathological physiology, and the roentgenographic findings of this entity have been discussed by many investigators. In high degree this is a rare anomaly but nonclinical types[6] are infrequent. It is found three times as frequently in men as women.

### Case Report

#### History

The patient was apparently well up to 1927 when he had a cerebral accident, was unconscious for a few minutes and then developed a complete right hemiplegia. After about six months in bed, there was a gradual clearing of the paralysis except for a slight slurring of speech. From then to 1931 he was quite well, at which time he began to notice some dyspnea which gradually increased and was especially severe on exertion. In 1933 he began to use two pillows at night and also had several attacks of nocturnal dyspnea. He had not been able to work since 1931 because of dyspnea and was in bed on and off most of the time. In 1935 he began to notice swelling of his ankles for the first time. There was no cough and no precordial pain. There were no gastro-intestinal symptoms and there was nycturia 1 to 2. The patient was first seen by us in 1936 when his chief complaints were shortness of breath, swelling of ankles, a loss of 40 pounds in the last seven years, and night sweats for the past three to four years. He used alcohol in moderation,

*From the Cardiac Clinic of Harper Hospital.

but no tobacco or drugs. His appetite was good and his bowels were regular. There was slight deafness in the left ear.

*Past History.* Cerebral accident as above; appendectomy 1926. Had worked with blast furnace in presence of iron dust for fifteen years.

*Marital History.* Married twenty-three years. Wife living and well. Two daughters living and well.

*Family History.* Father died at eighty years, cause unknown. Mother living and well. One brother living and well. No history of any chronic familial disease.

### Physical Examination

The positive findings were a well developed and nourished Italian male of medium weight and height, about forty-seven years of age. *Eyes*—The fundi showed neuroretinitis with a few peticheal hemorrhages. The vessels were tortuous and the end arteries were moderately so. The disc margins were slightly blurred. Class 2 hypertensive fundi. The neck veins were engorged and there were marked pulsations in the suprasternal notch. The chest was emphysematous and showed labored respirations. Wheezing musical expiratory râles were heard over the entire chest. Heart pulsations were noted over the whole precordium. The apex beat was diffuse. There were no thrills. The heart was enormously enlarged in all diameters. The rate was grossly irregular. There was a loud systolic and a presystolic murmur heard everywhere over the chest but the loudest over the mitral area and transmitted to the axilla and through to the back. The blood pressure in the left arm was 220/120; right arm 210/100; left thigh 130/110; right thigh 110/80. *Abdomen*—The liver was felt just beneath the costal margin. *Extremities*—There was marked pitting edema of ankles, feet, lower legs, and over sacrum. The reflexes on the right side were more pronounced than those on the left.

### Electrocardiogram

Totally irregular rhythm. Right ventricular extra systoles. Marked RAD. Average ventricular rate 60. P replaced by continuous undulations. QRS equals 0.10 seconds. Notched in 2 and 3. T 1 slightly diphasic. T 2, 3 strongly inverted. S-T 1 lightly depressed. S-T 2, 3 frankly depressed. S-T 4 elevated. Q 4 absent (old terminology).

### Laboratory Findings

The Kahn test was negative. The blood sugar 0.154; nonprotein nitrogen 39.9; vital capacity 1,700 c.c.; blood culture no growth. Hemoglobin 12 gms., 90 per cent (Sahli); red blood cells 6,670,000; white blood cells 10,650; stab neutrophiles 4 per cent; segmented 66 per cent; lymphocytes 30 per cent. Urine was acid; specific gravity 1.025; sugar negative; acetone negative; sediment few RBC; occasional WBC. Urine concentration test Vol. 200; specific gravity 1.018. Bleeding time seven minutes; clotting time four minutes. Muscle biopsies of pieces of left deltoid muscle and of vastus lateralis of left thigh showed on section striated muscle, normal blood vessels and nerve fibers with no pathological changes noted.[5]

### Roentgenologic Examination

Examination showed marked left sided cardiac enlargement in the anteroposterior plane and absence of the transverse arch of the aorta as shown in the lateral plane. The tracheobronchial adenopathy was considerably in excess of normal. There was some fibrosis in the right lower lobe and a limited amount of atelectasis of the right lower lobe just lateral to the right border of the heart. The rib structure showed scalloping and sulcation. The forearms and legs were examined and the films revealed no evidence of calcification in the peripheral vessels and no abnormality in the bone structure.

### Skin Temperature

The patient was exposed to room temperature of 26 degrees centigrade for one hour. At this time his skin temperatures were as follows:

| | Right | Left |
|---|---|---|
| Big toe | 28.4 | 30.0 |
| Instep | 30.0 | 32.5 |
| Calf of leg | 30.0 | 30.7 |
| Above knee | 30.0 | 30.5 |
| Index finger | 31.6 | 33.3 |
| Wrist | 31.4 | 33.4 |
| Forearm | 30.0 | 32.0 |
| Upperarm | 32.0 | 32.0 |

### Course

During this visit in the hospital, his temperature ranged between 95-99.2; his pulse rate between 48-106; and his respirations between 17-28. He was digitalized and was occasionally given morphine and phenobarbital for dyspnea and restlessness. When noticeably edematous or markedly dyspneic, he was given 2 c.c. of Mercupurin in 10 c.c. of distilled water intravenously preceded by enteric coated ammonium chloride grs. XXIISS three times a day for three days. His pulse and respiration slowed with rest and he was discharged with instructions to return to the Out-Patient Department where he was seen every few weeks up to the time of his death except during his two subsequent hospital visits.

### Second Admission

Five months later, the patient was again admitted to the hospital. His weight was 147 pounds. He had progressively become more dyspneic even on the slightest exertion, with edema of legs and abdomen. He also had attacks of severe cardiac asthma and complained of severe cramps in legs even on walking across a room. There had been little or no cough. The liver was palpable three finger breadths below the costal margin and there was shifting dullness in both flanks. There was marked pitting edema of both lower extremities, sacrum, face, back, legs, and genitalia. His fluid intake always exceeded his output except when under hospital surveillance or taking mercurial diuretics. A slight improvement was noted after a rest in the hospital of about two weeks where he was treated with ammonium chloride, mercurin suppositories, and digitalis. His electrocardiogram was about the same as before. His

blood showed hemoglobin 98 per cent; red blood cells 5,200,000; white blood cells 8,000; segmented 76 per cent; lymphocytes 22 per cent; monocytes 2 per cent. Urine specific gravity 1.018 to 1.022; albumen 2 plus; sugar negative; microscopic negative. Blood sugar 129; nonprotein nitrogen 42.9; Kahn negative. Temperature between 96.8 to 99; pulse between 48-84; respirations between 16-28. The x-ray showed a definite increase in the size of the heart shadow. The heart measurements were: TD 33.8; LD 20.0; ML 14.3; MR 7.2; GV 5; AV ratio 0.408. There was more atelectasis of the right lower lobe.

### Third Admission

He was admitted to the hospital in complete decompensation where he was placed in an oxygen tent. The treatment was of no avail and he died January 26, 1939, five days after admission. The prominent findings on this admission were hemoptysis, prominent neck veins, moist râles throughout the lungs, a smooth and tender liver four finger breadths below the costal margin, and a marked pitting edema of both lower extremities and over sacrum.

*Laboratory Findings.*—His blood showed hemoglobin 13.5 gms., 92 per cent (Sahli); red blood cells 4,400,000; white blood cells 4,500; stab neutrophiles 2 per cent; segmented 74 per cent; lymphocytes 23 per cent; eosinophiles 1 per cent. Urine examinations showed specific gravity 1.010 to 1.018; albumen trace to 1 plus. Blood sugar 111 mgs.; nonprotein nitrogen 73.2; chlorides 435; total protein 6.48; albumen 3.42; globulin 3.06; albumen-globulin ratio 1.1 to 1; urea 39.0.

*Electrocardiogram.* (Final)—RAD. Auricular fibrillation not controlled. QRS equals 0.09 seconds. T 1, 4 upright. T 2, 3 inverted and deeper than in previous curve. S-T 2, 3 slightly depressed. S-T 4 elevated.

His temperature increased from 97 to 103 at exitus. His pulse remained at about 116.

### Autopsy

*Positive Pathological Findings.* The body was that of a well-developed, well-nourished, white male, fifty years old with marked edema of lower half of body. The left chest was more prominent than the right. The superior epigastric artery was much enlarged, measuring 1.3 cm. to .5 cm. in diameter from above downward. The liver was small, firm on section with evidence of fibrosis; it weighed 1,300 grams. The abdominal aorta revealed no abnormalities of size or structure.

The right pleural cavity contained 500-700 c.c. of clear yellow fluid, the left 700-1,000 c.c. The intercostal arteries were uniformly enlarged, varying from 0.6 to 1 cm. in diameter. Scalloping of the rib margins in their lower posterior and lateral surfaces was noted. The internal mammary arteries were dilated varying in diameter from .6 cm. above to 1.3 cm. below. A coarctation of the aorta was encountered at the point where the ductus arteriosus (not patent) joined the aorta. The innominate, right and left subclavian and carotid arteries were dilated. The pericardial sac contained 400-500 c.c. of clear yellow fluid. The heart was markedly enlarged in all its chambers; it weighed, with the great vessels, 1,140 grams. The orifices were dilated, but there were no abnormalities of the valves, except slight calcification of the anterior mitral leaf. The circumferences were: mitral 11.8 cm., aortic 9 cm., pulmonic 9 cm., tricuspid 15.3 cm. The coronary vessels were not calcified and were patent. The right and left lungs were heavy with apparent diffuse fibrosis on section. They were crepitant, air-bearing, floated and presented no other gross abnormalities on section. The peritoneal cavity contained 2,500-3,000 c.c. of clear yellow fluid.

1. Coarctation of the aorta.
   (a) Coarctation at a point where the left subclavian and nonpatent ductus arteriosus joined the aorta.
   (b) Marked dilatation of all chambers of the heart.
   (c) Marked hypertrophy of all myocardial tissue.
   (d) Chronic passive congestion of lungs, liver, kidneys, and spleen.
   (e) Old subpleural hemorrhage.
   (f) Dilatation of the subclavian and carotid arteries.
   (g) Dilatation of the internal mammary arteries.
   (h) Dilatation of the superior epigastric artery.
   (i) Dilatation of the intercostal arteries.
   (j) Scalloped lower rib margins.
   (k) Dilatation of the azygos and hemiazygos veins.
2. Hemorrhagic cystic glands.
3. Two small ventral herniæ.
4. Pleural, pericardial and peritoneal effusion.

Microscopically, there was minimal fibrosis of the lungs. The microscopic examination of sections of other organs concurred with the gross findings.

### Discussion and Conclusions

The writer presents a case of adult type of coarctation of the aorta, not associated with any other congenital lesion, in a male of fifty years of age who showed right axis deviation in his electrocardiogram and a markedly dilated and hypertrophied right heart. The patient had shown a left ventricular failure as evidenced by his dyspnea and orthopnea since we had first seen him. This would be the primary strain to be expected with coarctation of the aorta and associated arterial hypertension. We tried to account for his chronic cor pulmonale by the fibrosis and atelectasis as reported in x-ray examinations and his history or exposure to iron dust for a period of fifteen years. From our findings at post-mortem, we ruled out mitral stenosis, pulmonic valve stenosis or regurgitation, pulmonary endarteritis, organic tricuspid insufficiency, marked pulmonary fibrosis, or marked pulmonary emphysema. Hence, we concluded that his right ventricular failure with right axis deviation and hypertrophied right heart must have been the natural

sequence from the left ventricular failure. Thompson and White[8] were the first to discuss this commonest cause of hypertrophy of the right ventricle. They showed the sequence of events which produce the right-sided enlargement to be:

1. Weakening and failing of left ventricle.
2. Dilatation of left ventricle with relative stretching of mitral ring and hence regurgitation.
3. Onset of cardiac fatigue.
4. Elevation of pressure in left auricle with distention of lungs.

Thus, "the right ventricle in consequence is compelled to contract against a greater load and then passes through the same phases of cardiac strain as the left."

I am indebted to Dr. Paul D. White for his suggestions and Dr. R. W. McClure for the post-mortem examination and his careful measurements.

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**WAYNE FACULTY MEMBERS NAME TO STATE GROUPS**

Two members of the Wayne University faculty have been reappointed to state boards and commissions by Gov. Murray D. Van Wagoner.

Prof. Orin E. Madison, of the chemistry department in the college of Liberal Arts, was named to a new term on the State Board of Examiners in Basic Sciences, of which Wayne Prof. Warren O. Nelson is also a member. The five-man Board examines those persons seeking state authorization to practice the healing arts.

Dr. Edward J. O'Brien, professor of clinical surgery in the Wayne University College of Medicine, was named to a new term on the Tuberculosis Sanatorium Commission, the nine-man board which administers Michigan's two sanatoriums. He has been president of the Commission for the past twelve years.—*Wayne University Newsletter,* December 3, 1941.

# The Physician in National Defense*

By Robert A. Bier, M.D.
Washington, D. C.

ROBERT A. BIER
*Major, Medical Corps, National Headquarters, Selective Service System, Washington, D. C.*

I WISH to tell you how glad I am to be here on behalf of General Hershey, our Director, and Colonel Rowntree, the Chief of the Medical Division at National Headquarters of Selective Service. I am here to express to you their appreciation and that of the Nation for the fine work you are doing as physicians in Selective Service. It can be said in all truthfulness that the task of the physical examination of men in Selective Service is one of the most important and one requiring a great amount of work. The fact that you are doing this as a patriotic duty and without compensation is another great milestone in the illustrious history of American medicine.

No doubt you are, from a professional standpoint, interested in matters concerning the rejection of registrants at the Army induction station, after they have been passed by Selective Service physicians. In some states this ratio has been quite high and in others, relatively low. The high rate of rejections, however, has given us some concern, not only of themselves, but also because of the unfavorable public reaction. We want it distinctly understood by all that the Army and Selective Service are not rivals or working at opposite purposes, but are working together as a team. The purpose of this team is to select those men best fitted for training to become cap-

*Presented at the seventy-sixth annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 17, 1941.

**able soldiers in a modern army, with all that it implies.**

### Army vs. Selective Service

The difference of opinion of the two groups of examiners in the Army and Selective Service may be expressed briefly.

A. On the part of the Selective Service physician:
1. The desire to fill the call
2. Unfamiliarity of Regulations and improper interpretation
3. Sending the registrants to the Army for a decision because of failure to take the responsibility of passing or rejecting them. **(The Regulations require that men be sent to the Medical Advisory Board for a final decision where there is any doubt as to the exact status of the man's condition.)**

B. On the part of the Army examining physician:
1. A disciplined team of physicians under supervision of a trained medical officer
2. More familiarity with the Regulations and their interpretation
3. Training in the procedure of processing men for a particular purpose
4. Desire of the Army to admit only those unquestionably physically and mentally qualified for training as modern soldiers and who will not become charges of the Government.

To illustrate the physical stamina needed, a soldier must be able to march twenty miles a day with full equipment, and at the end of the march have enough reserve energy and stamina to engage in combat. In spite of the mechanization of some of our forces there is still need for such stamina. It takes physical strength and endurance to ride in or to operate a tank, cross-country car, or reconnaissance car across rough terrain under battle condition. Even with this careful double examination there are some unqualified men who manage to get into the Army and who must, therefore, be discharged, as shown by the following report from the Surgeon General's Office:

The rate of discharges for physical and mental disability for soldiers procured through the Selective Service System is much lower than the rate of discharges for men entering the Service in any other manner. The rate of discharge for Selective Service men is 5.4 per thousand; National Guard, 16.7 per thousand; Regular Army in peacetime, 19.4 per thousand and Regular Army from recent enlistments, 24.4 per thousand.

From a purely professional standpoint, there is a difference of opinion among physicians which will always give rise to a certain rate of rejections, no matter how well each group may do their work.

There have been instances in which the Army examiners have been overly cautious or have "ridden a hobby" or have even misinterpreted Regulations. In the latter case it was necessary in one instance to call to the attention of the Corps Area Surgeon an incorrect interpretation of Regulations by a certain Army induction station. The fault was corrected and the rate of rejections at that station dropped. We know that in a few instances had more time been given by the physicians in Selective Service to the study of the Regulations and the examination of the registrants, we would have suffered fewer rejections at the Army induction station. In justice to the physician, who in his ordinary practice has little time, this work of Selective Service is an added burden.

I might say that one of the principal errors that physicians make in the Selective Service examination is the attempt to examine men without having them remove all their clothes. To improve the physical examination of Selective Service, we recommend the following:

**1. Know and adhere to the Regulations in MR 1-9 as found in Selective Service Regulations, Volume VI.**

**2. When and wherever possible, examining teams of physicians should be formed to process the registrants. As few as two or three physicians may work together as a team. The team examination makes for a better examination and reduces considerably the time and work required. If possible, these team examinations should be made in hospitals, clinics, or other similar medical institutions. Every effort should be made by local Selective Service officials to obtain such housing for the medical work of Selective Service. Medical schools could offer the facilities of their buildings and the students should assist as clerks, and junior clinicians in the examinations of registrants. Such work as weighing, measuring, and other simple procedures may be done by the senior students in medical schools.**

In the District of Columbia, all twenty-five local boards have had their examining physicians in teams housed in five major hospitals since the installation of Selective Service. In addition, students from the three medical schools in Washington assist in those examinations during the school term. This plan has resulted in a low rate of rejections, with practically no turnover of examining physicians, and a high morale among the physicians of Selective Service, and the city as a whole.

A procedure that National Headquarters believes will improve the record of Selective Service at the Army induction station is the more frequent use of the Medical Advisory Board. Here we have available specialists who are, in many instances, men of outstanding ability in the community and in the country. Local board physicians should refer more men to the appropriate specialists on the Medical Advisory Boards. In this way, many registrants may be properly classified in their own local board. By an accurate determination of the man's physical condition by referral to the specialist, much trouble can be saved for the registrant as well as avoiding trouble and expense for Selective Service and the Army. Such action will, of course, reduce the number of rejections at the induction stations and lessen the embarrassment to the physician in his local community. It is advisable for all examining physicians to know their Medical Advisory Board and make use of its full facilities. It has been estimated that at least 5 per cent of registrants should be sent to the Medical Advisory Board. From our observations throughout Selective Service, the Medical Advisory Boards are not used to this extent.

In the early days of Selective Service there was much trouble regarding rejections at induction stations because of teeth. Much of this trouble has been eliminated with the appointment of dentists as dental examiners for each local board. In addition, dental regulations have been liberalized by the use of Medical Circular No. 2 (dental) with which you all should be familiar, whether you are a dentist or a physician. Several conditions which may give rise to difficulties at the Army induction station, and subsequently, if these men are admitted to the Army, are: old fractures with varying degrees of deformity, hernias, flat feet and low back syndromes. Such cases should be examined with particular care by the local board physicians and when there is any doubt whatever as to the exact condition they should be referred to the appropriate Medical Advisory Board member. Flat feet and low back syndromes, while perhaps not particularly disabling, are often a source of complaint by the soldier who does not wish to meet his obligations or who wishes to extricate himself from an unpleasant duty. A very practical Army Medical Officer with twenty-five years of service, the Chief Medical Officer of a large Army induction station, said to me in referring to such a case: "I just know that he won't make a good soldier." Such complainers may be borderline mental cases, as well as being physically handicapped.

The Medical Division of National Headquarters welcomes opportunities such as this to discuss frankly with the physicians of Selective Service the problems as we see them and to gain from you an insight into difficulties that you encounter. Due to the magnitude of the work and the limited time at our disposal, certain difficulties are bound to arise. We at National Headquarters have tried to put ourselves in your place. We are constantly endeavoring to improve ourselves by education in the work of Selective Service, and you can do the same. Local, State and National meetings are encouraged for the purpose of training and the indoctrination of physicians in the medical work of Selective Service. In several states there have been local meetings of Selective Service physicians for the discussion of general and specific problems. Large regional seminars in psychiatry have been held throughout the country. One state in the East, in which the medical work is on a high plane, has a semi-official, part social and part professional organization called Physicians in Selective Service. They have regional meetings which are not only to the betterment of Selective Service but bring together these physicians to their mutual professional and social benefit. We must all work for the common good.

### Lessons from World War

One of the lessons learned from the World War was the importance of keeping out of the Service men who are mentally unfit for military service or who are absolutely psychopathic. Men who are mentally unsuited for the armed forces

are a source of trouble and expense while in the Army and may later become charges of the Government, for the rest of their lives. The Veterans Administration estimates that it is costing the citizens of this country approximately $30,000 for each psychopathic case accepted into the Army during 1917-18. Even now, this early in our national effort, we are hearing of the Army's problem in the matter of mental cases inducted to date. Colonel Porter, an outstanding psychiatrist of the nation and the Chief of the Neuro-Psychiatric Service at the Army Medical Center in Washington, states, in a recent newspaper interview, that the care of mental cases in the Army as the result of the present expansion of the armed forces is becoming a very serious problem. These cases already are taxing the bed capacity of the military hospitals and are freezing these facilities, rendering them unavailable for other more urgent purposes, as in the event of disease epidemics or war casualties; yet, we are only at the beginning of our procurement program for a large armed force. The selection out of registrants mentally unsuited for the military services is one of the most important single problems of Selective Service.

### Mental Examination Problems

Every effort should be made to accomplish this end. Large regional seminars were held throughout the country. These should be augmented by State, county and local seminars to impress upon the physicians and others in Selective Service, not only the importance of selecting out these men, but all the methods available for detecting them. This may be accomplished by rejecting those men known to the community as queer, social misfits, the town ne'er-do-wells, and others. The liberal study of Medical Circular No. 1 (revised) will be of tremendous value, not only to psychiatrists, but to local board physicians as well, in detecting and classifying these patients. Here again, the use of the Medical Advisory Board psychiatrist should be utilized in each and every case in which the local board physician has the slightest suspicion that a registrant is not entirely normal.

A procedure is recommended that is in use in several states with spectacular success. This is the use of social service exchanges or other agencies who record a man's commitment or treatment in any mental institution. In the several states which keep such a record, the names of all men in Class I are sent to this central clearing point. Any man whose name is found in this file as having been treated at an institution for mental and nervous disorders is sent to the local board. In order to keep within the law as to the confidential nature of the exact condition for which the man was treated, no diagnosis is given. The mere fact that a man has been treated in an institution is sufficient reason for keeping him out of the Army. This may seem severe or unreasonable to some, but experience has shown that those patients do not make good soldiers and in all probability will break down and become full-blown mental cases with all that it implies. Therefore, I cannot urge upon you too strongly the necessity of keeping out of the Army, not only all those who are mental cases, but also all those who are temperamentally unsuited to military life with its severe training, discipline, and necessary social adjustment. Try to make it clear to the public that these men rejected are not mental cases or necessarily "crazy" or "mad" (to use newspaper vernacular) but they are merely temperamentally unsuited to this occupation just as an energetic, brilliant professional man would not do well in an industrial plant as a machine operator doing a monotonous simple task day in and day out. There is absolutely no stigma attached to this man if classified as temperamentally unsuited to such work.

### Thoroughness Needed

In certain industries the by-product has at times become as important, or more so, than the original product for which the industry was established. This is the situation in Selective Service as regards the statistical study of the records of Form 200. (Report of Physical Examination.)

At the present time the chief function of the medical work of Selective Service is to properly examine men for presentation to the armed forces.

You have been asked to examine, thoroughly, each and every man sent you and to complete Form 200. The chief reason for the completion of the examination is so that every man may be properly classified as to his true physical condition. It may be necessary in the future to call for limited service, certain of these men with

minor defects. If a physical examination is stopped when the first disqualifying defect is found, we will not know if the man has any other disability which will render him incapable of any military duty: for example, a man with an insufficient number of teeth may be classified I-B and carried on the records as available for limited military service, when, in reality he may have a heart condition which would render him unsuitable for any military service; therefore, all men should be classified on their principal disability and all other disabilities or defects noted. When there is need for limited service men these registrants who have been classified on a partial examination will have to be called again and given a thorough examination. By completing the physical examination the first time much work will be saved the physician and Selective Service, and a proper classification of the men will be obtained.

The statistical study of the defects in these men will assume greater and greater importance as time passes. Already from the meager reports, we have learned with some chagrin that our manhood presents a large number of physical imperfections. As the work progresses and these studies are furthered, we shall be able with some degree of accuracy to determine the percentage and numbers of these defects and how they are distributed as to age, race, occupation, geographic situation and perhaps their social and economic status. The information is taken from the duplicate form 200 sent to National Headquarters by your local boards through State Headquarters.

In addition to making a complete examination, Form 200 should be properly and completely filled out. In filling out this form, care should be taken to state as accurately as possible the results of your examination in a proper scientific and professional manner. Obviously such diagnoses as "eyes can't see to do no good," and "bad heart," "crippled since birth," "dogs flat," "mouth terrible," "impossible teeth," etc., do not reflect credit upon the examiner and make it exceedingly difficult to properly classify such defects.

The Statistical Division at National Headquarters has established a nomenclature of diseases and conditions for coding defects found on Form 200. This nomenclature may be published for distribution throughout Selective Service, for your information. In the meanwhile, you are urged to use any standard nomenclature of disease and injuries in recording the results of your physical examination. Those of you who work in hospitals approved by the American Hospital Association are familiar with the rigid requirements of that organization in recording your clinical findings and describing your operations.

### Analysis of the Unfit

Now that we have considered the major medical problems of Selective Service as regards the actual procurement of men for the Army, let us look at the situation from a broader view. I refer to the present status of National Health as revealed by the analysis of Selective Service examination. As mentioned previously, the large per cent of men unfit for military service among the 21-36 age group has come somewhat as a surprise and as a disappointment. This Nation, almost above all others, enjoys more prosperity, better standards of living and better medical care than any other nation; yet it is a matter of great concern, not only to the medical profession, but to the whole country, that we appear so deficient in health. It is a well known fact that one of the reasons for lowering the age in Selective Service to 28 years was due to the very high proportion of physical defects in men in older age groups. The number of men rejected in these higher age groups was larger than those accepted as physically fit for general military service. If this state of affairs exists among males of the Selective Service age group, it is reasonable to expect this to be an index to the health of the rest of the Nation, that is, the women and children, and those males below 21 and above 36.

This condition of the health of our manhood as indicated by Selective Service present a challenge to the medical profession of this country. The problem is not only what to do about the defects as found in the registrants in Selective Service, but what to do about the health of the whole Nation, in the present and in the future. The medical profession, with the coöperation of all available interested agencies, should institute a program of: first, education of the public to the need and importance of better health, and, second, how it may be procured.

### Rehabilitation

The first step in this program is that of prehabilitation. Prehabilitation is a word coined at National Headquarters, in which the registrant, before he is called up for physical examination by Selective Service, secures a physical examination according to the Standards of the Selective Service requirements. If it is found that he has certain remediable defects which may prevent his entrance into the service he secures a correction of these defects in order to be acceptable to the armed forces. This plan implies the patriotic effort of a registrant to prepare himself for service to his country.

Rehabilitation of the rejected registrant with remediable defects is another important step in the program. The correction of these defects in registrants not only will provide more men for national need, but will be of great value to the registrant himself. After the rehabilitation of the registrant with remediable defects comes the consideration of the men rejected for more serious defects—those classified IV-F. Many of these men may not be able to have their defects remedied to enable them to be acceptable to the Army, but it may be possible to have their condition improved or arrested so as to make them an economic asset rather than a liability. A great many defects or diseases discovered at the Selective Service examination may be found in time to make a considerable difference in a man's life expectancy if attended to properly.

In addition to the present problem as to the defects found, we must consider ways to prevent them. The highest causes for rejection are found in teeth, eyes, and musculoskeletal defects. Some study should be made as to the causes of these conditions with a view to correcting them.

In one of the large midwestern universities, through the influence of the Dean of the Medical School, a plan was instituted for the correction or improvement of defects found among the male students of Selective Service age. These students were examined in accordance with the physical standards for Selective Service and were classified I-A, I-B, or IV-F, accordingly. This is a plan that might well be adopted by all colleges and universities, not only among the men, but the women as well. Certainly in a worthwhile endeavor toward a better national health, the institutions of learning can and should lead the way.

This is a gigantic program and all available forces at our command will be needed to accomplish it. If Selective Service does no more good than to focus our attention on the present trend of national health, it will be well worth all that it costs our Nation.

### Medical Personnel

A situation of which most of us were aware, but which has become accentuated by the present emergency, is the supply and demand of physicians for civilian needs and National Defense. It is a well known fact that there are too many physicians in urban areas, and not enough in rural areas. This is partly the fault of the physician and partly the fault of the public. A young physician receives his education and training in the large metropolitan areas and tends to settle there, rather than return to the locality from which he came. In the rural areas there are many localities which will not adequately support a physician in the manner to which he is entitled after his long years of study and sacrifice. How this problem may be solved is not an easy one but is one that should be given earnest consideration in the plans for an adequate program for our Nation, not only for the present, but for the future as well.

The Surgeon General of the Army has stressed the need for more and more officers to supply the demands of our new Army. To offset the shortage of physicians by younger men being called to service, the following suggestions are offered: More women should be encouraged to study medicine, and those women not in active practice should be encouraged to return to active medical work to assist during this period of emergency. Older staff members of hospitals will have to do the work formerly performed by their juniors and assistants. Men who have retired or are about to do so should return or continue in private practice if possible. Every effort should be made to conserve the limited medical manpower now available in the country. It behooves us all to work a little harder, sacrifice a little more, and bend our efforts to the fullest capacity, to the end that our country will be better served.

# The Dangers in Breech Delivery*

Ward F. Seeley, M.D., and R. S. Siddall, M.D.
Detroit, Michigan

WARD F. SEELEY, M.D.
*A.B., University of Michigan, 1909. M.D., University of Michigan Medical School, 1911. Fellow, American College of Surgeons. Diplomate, American Board of Obstetrics and Gynecology. Member: American Association of Obstetricians, Gynecologists and Abdominal Surgeons; Central Association of Obstetricians and Gynecologists; Michigan Society of Obstetricians and Gynecologists, Michigan State Medical Society. Chief, Obstetrical Division Herman Kiefer Hospital. Attending Obstetrician and Gynecologist, Harper and Receiving Hospitals. Professor and Chairman of the Division of Obstetrics and Gynecology at Wayne University College of Medicine.*

ROGER S. SIDDALL, M.D.
*A.B., University of North Carolina, 1916. M.D., Johns Hopkins University, 1920. Diplomate, American Board of Obstetrics and Gynecology. Assistant Professor of Clinical Obstetrics and Gynecology, Wayne University College of Medicine. On the staffs of Harper Hospital, Herman Kiefer Hospital, and Highland Park General Hospital. Member: Michigan State Medical Society; Michigan Society of Obstetricians and Gynecologists; Central Association of Obstetricians and Gynecologists.*

■ IT IS generally acknowledged that breech presentations, while having little effect on maternal results, present definitely greater infant dangers than do vertex presentations. The increased risk is largely due to (1) the fact that complete birth of the child must occur within a few minutes after the stage of expulsion up to the level of the umbilicus, or there is apt to be compression of the umbilical cord between the head and the birth-canal with resulting fetal asphyxia; and (2) birth injury from efforts on the part of the obstetrician to overcome dangerous delay in delivery. There are other hazards also, and it seemed to us that some of these dangers, the true significance of the factors related to them, and their management were still obscure. In an effort to obtain further information, as a basis for more successful treatment, we reviewed the important recent literature along with the study of a large series of breech cases from Harper Hospital and Herman Kiefer Hospital.

### Incidence and Etiology of Breech Presentation

The incidence of breech is given as 2.1 per cent (Kushner) up to 6.32 per cent (Santomauro). At our hospitals the figures were 4.8 per cent at Harper and 6.3 per cent at Herman Kiefer, the latter having many emergency admissions. We could determine no statistically discernable cause for breech presentation, other than the recognized one of premature labor. Contrary to usual statements, obstacles to engagement of the presenting part seemingly have little or no effect. For example, among our full term cases, contracted pelvis occurred in 2.9 per cent—actually a rather low incidence. Apparently, other commonly stated causes, such as placenta previa and toxemia of pregnancy, are of importance simply as causes of premature delivery.

### Fetal Mortality

Essential to our study was a determination of the mortality which could be ascribed to breech presentation. There seems to be confusion on this point, the published gross mortality rates varying from 11.5 (Beni) to 35.3 per cent (Mohler). In our 773 cases there were 244 stillbirths and neonatal deaths, making a gross mortality rate of 31.6 per cent. The vast majority of these deaths, however, occurred among the very immature, or else the babies were dead on admission or had serious developmental anomalies. In other words, much of the gross mortality associated with breech is not ascribable to the presentation but rather to the inclusion of an unusual number of babies who would have little or no chance of survival under any circumstances. Consequently, in order to obtain a truer picture, we excluded babies weighing less than 3 pounds 4 ounces or 1500 grams, and those already dead on admission or with anomalies incompatible with life. We found eight reports permitting an estimation of the stillbirth and neonatal mortality on this basis. The lowest was 5.38 per cent (Nevinny—in only 130 cases) and the highest 22.7 (Danforth and Galloway). For the 538 such cases at our hospitals the figure was 9.9 per cent.

Since breech presentation is considered especially dangerous for the immature fetus, the high mortalities noted above might be due in great part to the inclusion of premature with the full term babies. To clarify the point, we accepted, in the absence of better criteria, the usual arbitrary standard of a birth weight of 2,500 grams (5 pounds 8 ounces), or over, as indicating full

*From Harper and Herman Kiefer Hospitals, and the Division of Obstetrics and Gynecology, Wayne University. Read before the Section on Obstetrics and Gynecology, Michigan State Medical Society, September 19, 1941.

term development. The reports seen by us, in which at least 200 cases were involved and where calculations were made on this basis, gave mortalities ranging from 8.5 (Cannell and Dodek) to 12.8 per cent (Gordon, Garlick and Oginz). At our hospitals the 449 breech babies in this group had a death rate of 6.5 per cent. These rather high mortality rates for the very favorable term babies (as well as the previously mentioned excessive combined premature-term, and the gross figures) give incontestable evidence of increased risk associated with breech presentation. As further evidence, we compared the term breech group at our hospitals with an entire four year series of full term babies and found the breech mortality to be 6.5 per cent, as noted before, and for all presentations 1.9 per cent.

### Factors in Fetal Mortality

If we grant, then, that breech presentation is associated with an inevitably graver fetal risk, it becomes important to determine and examine the factors concerned in the greater mortality. This would be at least a step toward better management of these cases.

*Skill in Delivery.*—Perhaps the most emphasized factor in fetal mortality is the technique of manual aid or breech extraction. A few authors even deny the inevitably greater risk to the breech child on the grounds that skill in delivery will compensate for the dangers of the presentation. We are agreed that expertness will greatly improve results, but we are also convinced that the inherent dangers in breech presentation cannot be entirely eliminated by any degree of skill in delivery. The various techniques for breech delivery are described in all textbooks and need not be repeated. Of more interest, we believe, would be a consideration of the less known factors in breech mortality.

*Prolapse of the Umbilical Cord.*—The higher frequency of prolapse of the umbilical cord in breech presentation than in vertex is no doubt in great part due to the imperfect fit of the smaller and irregular breech into the birth canal. Nine reports gave incidences varying from 0.9 (Westman) to 11.9 per cent (Sherman), with an average for all cases of 2.9 per cent. In our cases the occurrence was 3.3 per cent, which is about six times the usually accepted 0.5 per cent for vertex. The gravity of this increase is indicated by the high fetal mortality variously reported at 25 to 50 per cent. Among our eighteen cases with the complication, 6 or 33.3 per cent of the babies were lost. So definite is the danger that Studdiford and Sherman advised vaginal examination on rupture of the membranes so as to permit early discovery and prompt treatment.

*Premature Separation of the Placenta.*—As a factor in breech fetal mortality, we found frequent mention of premature separation of the placenta, which theoretically might occur from retraction of the uterus after partial expulsion of the child. However, there was apparently no such instance in our series, and in the literature we found no statistical evidence of unusual occurrence in breech.

*Contracted Pelvis.*—There is as yet no technique for accurate comparison of the size of the breech baby's head (situated in the fundus) with that of the pelvis. Even x-ray cephalometry offers many technical difficulties. In contracted pelvis, then, disproportion between the size of the head and that of the pelvis could well escape discovery until late in labor, when the resulting delay in descent would greatly endanger the child. The seriousness of the danger is indicated by Cavagnino's 26 cases with 6 deaths, and by the 31.7 per cent fetal loss in primiparas and 32.6 in multiparas reported by Gordon, Garlick and Oginz. In marked contrast, there were no deaths in our thirteen full term breeches with contracted pelvis. This exceptional result is probably explained, however, by the fact that 6 or nearly one-half were delivered by cesarean section. Presumably, the operation was employed whenever any possibility of disproportion was suspected. Such treatment would seem justifiable from the standpoint of the child alone, but may be debatable when the interests of the mother are also considered.

*Frank Breech.*—Because of more frequent difficulties in actual delivery, it is often said that frank breech has an especially high mortality. A few authors, notably Morton, deny this. Of the 538 cases with viable babies at our two hospitals, there were 298, or 55.4 per cent frank breeches, an incidence approximating Moglia's 54.2 per cent. The results for

**frank and other varieties of breech, as well as for the divisions of these groups according to parity and their further subdivisions into those with premature or full term babies, showed without exception lower mortalities for frank breech.**

*Prolonged Labor.*—The common belief that breech labor is more apt to be prolonged, with consequent adverse effect on the fetus, finds no confirmation in the recent literature. Gateaux gives the average length of labor for multiparas as 10 hours 25 minutes, and Meyer 12.3 hours; while for first labors Morton, Kushner, and Meyer report 16 hours 41 minutes, 17.7 hours, and 17.5 hours, figures well within the generally accepted averages.

*Premature Rupture of the Membranes.*—Early rupture of the membranes occurs in a high proportion of breech cases—according to Gateaux in 26.1 and Westman 32.8 per cent. There is, however, little evidence of definite influence on fetal mortality, other than a related increase in prolapsed umbilical cord. An incidental finding of some interest was the same apparent accelerating effect on breech labors, as has been shown for vertex presentations.

*Parity.*—Anticipating convincing data to indicate a higher fetal mortality in first labors, we were surprised to find that four of the twelve reports consulted, as well as our series, showed just the reverse; and a fifth gave identical results for primiparas and multiparas. An explanation for this in our cases and Beni's (the only other series giving separate results for premature and term babies) was the excessive mortality for prematures in multiparas. Full term results (obtainable from our series, Beni's, Santomauro's, and that of Gordon, Garlick and Oginz) showed without exception a higher fetal mortality in first labors.

*Age of Primiparas.*—Beruti reported an increasing fetal risk in primiparas with advancing age and stated that in those over age 30 the fetal loss was deplorable. Three other studies which gave adequate data (Westman, Cannell and Dodek, and that of Gordon, Garlick and Oginz) confirmed the statement in great part. In our series the primiparas of thirty years and over had a full term fetal mortality of 13.3 per cent, as compared to only 6.8 per cent in the younger women. In the age group of thirty-five years and over the fetal loss is still greater, being reported as 20 to 35 per cent.

*Birth Weight.*—Very small babies in all presentations have a high death rate, and this is further increased in breech. Less known is the increased risk for large babies. Mohler's mortalities of 50 per cent in primiparas and 26.1 per cent in multiparas for babies weighing 8 pounds or over gives an exaggerated picture, no doubt; but in every instance the reports offering data on this point showed a greatly increased risk for babies over medium weight. The mortalities according to birth weight as found in our series are illustrative, as follows: 6 pounds to 6 pounds 15 ounces—4.4 per cent; 7 pounds to 7 pounds 15 ounces—2.5 per cent; 8 pounds to 8 pounds 15 ounces—11.3 per cent; and 9 pounds and over —20 per cent. Differences were more marked in first labors but were also of considerable clinical importance in multiparas. An obvious restriction on the use of this information is the impossibility of accurately gauging the weight of the unborn fetus, though the usually possible estimate of small, medium, or large size should be sufficient in most cases.

*Prophylactic External Version.*—The most potent factor in the moderation of breech fetal mortality, in our opinion, is the greatly neglected prophylactic turning of the inevitably dangerous breech presentation to the safer vertex. Granting some possibility of entanglement of the umbilical cord or detachment of the placenta, the actual incidence of such accidents, according to all available evidence, is so low as to be almost negligible. This being the case, and considering the reduction in fetal risk, a trial of the procedure is most worth while, even though it is recognized that there are some failures and recurrences. The technique is well known and requires no repetition.

## Conclusions

There is an inevitably greater fetal risk associated with breech presentation. For example, in our series from two Detroit hospitals the breech mortality was more than three times that for all presentations. Since the greater part of breech mortality occurs in the expulsive stage of

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labor, skill in actual delivery is essential and can greatly modify fetal loss, but, on the other hand, cannot be expected to eliminate all danger. An examination of less known factors, which could be responsible for the increased danger, showed that premature separation of the placenta, frank breech, prolonged labor, and premature rupture of the membranes were probably of little or no consequence. Prolapse of the umbilical cord, however, with its high fetal mortality is six times as frequent in breech as in vertex. The breech risk for full term babies is definitely increased in both primiparas and multiparas, but the increase is much greater in first labors. For premature babies our investigations indicated an unexplained reversal of this parity relationship. Breech delivery by the vaginal route in elderly primiparas, or when the baby is large, or when there is contracted pelvis results in such a high mortality that consideration for the fetal interests may justify cesarean section in some instances. And, last of all, we wish to emphasize that all the additional risks due to breech presentation can be eliminated in the majority of cases by the usually simple and reasonably safe procedure of prophylactic external version to vertex.

Authors' Note: Much of the material here appeared in an article published in New International Clinics, 1:28, 1940, New Series 3, but the text and arrangement are new. The addition of new data has resulted in some modification of the conclusions in several respects.

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# A Psychiatrist Looks at Education

**By Louis Adrian Schwartz, M.D.**
**Detroit, Michigan**

Louis Adrian Schwartz, M.D.
*B.S., University of Michigan, 1924. M.D., University of Michigan Medical School, 1926. Attending Physician Harper and Woman's Hospitals, Detroit. Lecturer in psychiatry, Wayne University College of Medicine. Diplomate of National Board of Medical Examiners, 1927. Certified by American Board of Neurology and Psychiatry, 1940. Fellow of American Psychiatric and American Orthopsychiatric Associations. Member of American Psychoanalytic Society, American Association for the Advancement of Science, American Academy of Social and Political Science, National Research Council, Michigan State Medical Society, Advisory Board, Anderson School, Staatsburg-on-Hudson, and Sherwood School, Bloomfield Hills.*

■ If we are to understand some of the bewildering problems confronting American youth today and the requirements for his educational development, we cannot ignore the effect of the present international crisis as it impinges, directly or indirectly, upon each individual. The social, economic and political problems of the past two decades have had far-reaching effects upon youth and family life, both materially and intellectually. Today youth is further faced with the actual danger of United States involvement in war. He must answer the question of his own philosophical attitude toward such an eventuality and consider his possible participation in it. For the past twenty years, educators and others have directed their energies to exposing the horrors of war and its futility as a means of settling disputes between nations. American youth learned that lesson, only to discover that while we had been preparing our minds for peace, the dictators had been preparing for war.

Education of American youth must now concern itself with the serious task of diligently preserving that democracy which was attained by our forebears. The safeguarding of democracy requires, first of all, an understanding of American social institutions and, second, a wider insight into the social and cultural development of other peoples. Thus may unity and loyalty to the democratic ideal be crystallized by the added appreciation of the other fellow's problems. Youth must understand something of the life behind economic and social development. But it will not be enough to recite the catalogues of economic,

industrial and political changes if we do not go further and inquire what they imply in the lives of people. Youth must gain an appreciation of human values, must come to understand how others feel and learn to live harmoniously together. It is in a new orientation toward these disturbing socio-economic and political questions that hope lies for the enrichment of life and the fuller development of youth for his adult responsibilities.

**With the passing of the geographical frontiers which successfully utilized the ambitions and the exploiting, acquisitive instincts of men has come much limitation of economic opportunity. This in turn has imposed greater demands on the individual in his harrassed interpersonal relationships. Gratification of materialistic desires has been lessened in many ways, especially for youth. This may be stated despite the fact that many have access to such modern conveniences as living in a multiple dwelling, buying previously cooked foods, sending out the laundry, using gas and electricity, and traveling by rapid transport. It is frequently suggested that such advantages have so hampered the resourcefulness of individuals that they could not cope with the complexities of life without them. It is true that technical changes in industry and business, the growing size of establishments, the use of power machinery, the operation of chain stores and other conditions of contemporary industrial development have all revolutionized the character of our social life. The material aspects of these changes are relatively easily accepted. But if one pauses to reflect upon one's own experience, the realization dawns that such adaptation has not been accomplished without great concomitant difficulty. We are prone to forget that while the material culture of a civilization is readily changed, the intangible, non-material culture of customs, traditions, codes of behavior, ethics, morals and folk-ways is less plastic. Long after new material values have changed the patterns of conduct which governed man's behavior in a former material culture, confusion, dismay and distrust are produced as man struggles to reconcile the old with the new.**

What may be some of the results of this changing socio-economic life for the individual? The most direct effect can be seen in the matter of earning a living. At the outset, it is well to remind ourselves that today it is largely a question of *earning* a living while, a few generations ago, it was a question literally of *making* a living. In earlier days the individual was, for the most part, engaged in agriculture or in handicrafts, in which strength, skill, patience and endurance played a large part. The family was the industrial and economic unit. A young man had before him the example of his father or neighbor. Similarly, a young woman had her mother as guide and teacher. Today, the situation is too frequently different. Youth is faced with uncertainty and anxiety. For the majority there are no longer safe and comfortable havens of traditional occupation and ways of life. Individual helplessness is an outstanding characteristic of these conditions. Whatever the individual's capacity and skill, his employment is subject to abrupt terminations or limitations by business depressions. When times are good, he is subject to the loss of his job through technical changes which render his work obsolete, or he is worn out at forty. These large and intangible factors, creating the worker's helplessness, are reinforced by the more direct limitations upon his activity. Mass production and its attendant control of wages, hours and output by trade unions and other necessary forms of collective bargaining, have deprived the individual of any but an indirect participation in determining his earnings. Modern youth finds personal enterprise stifled by forms of productive and distributive activities. The professions are overcrowded. With the growth of the child labor laws and compulsory school attendance, the age for beginning to earn an income has been progressively postponed. While the individual has been rendered helpless in the matter of earning a living, he has also been progressively relieved of the claims upon him for immediate or future contingencies. There are widows' pensions, old age pensions, social insurances, family welfare societies and other necessary provisions which reflect the helplessness of the individual to make provision for the future. In all of this, we see a transfer of home functioning to wider social organization.

**How may education of youth help to meet this situation? Young people should be permit-**

**ted to share, in so far as their developing capacities permit, in the discussion and the solution of the issues that confront society. Discussion groups in subjects dealing with human relations, social psychology and social science should be vital parts of the education of youth. Through such means a growing knowledge of interpersonal relations can be developed, bringing to the students the contributions of medicine, psychology and social case work as they relate to the factors underlying success or failure, happiness or unhappiness in life.**

Youth must also be impressed with the fact that the privileges of citizenship bring responsibilities. Comprehension of the issues confronting our government, awareness of the dictators' threat to democratic principles, and active participation in the concrete tasks of social amelioration which are demanding attention—these are the ideals of intelligent citizenship which should be stressed at all stages of the educative process. We ought not to rely on the slipshod enlightenment of the newspaper columns or on haphazard bits of knowledge acquired through movies and radio. Youth must be moved to interest in the meaning of true Americanism, particularly since so many spurious brands are being peddled today. Youth must learn that propaganda should be scrutinized. Youth should become concerned with social issues, the judicious use of the ballot and participation in the responsibilities of government through a growing knowledge of the aims of our legally constituted representatives. Youth should become aroused to the menace of subversive movements and "isms" that carry within them the germs of intolerance, racial hatred and prejudice, before they assume formidable proportions. Youth must be immunized against the pitfalls of "ism" distortions and irrationality, through the development of an emotionally stable, coördinated and integrated personality which, in turn, has been molded by contact with educators who are effective, mature, wholesome individuals. The personality of the student is directly influenced by the personalities of the adults with whom he has been in contact. There is much in the American heritage that is being abused, and a great deal more may be perverted as the world chaos reaches an intensely critical stage. While the democratic process still prevails, youth should learn how to exercise his rights and fulfill his obligations as an integral part of the vast citizenry of our country.

A proper perspective of education for American youth would necessarily include an understanding of interpersonal relationships, learning how to live with one's fellow men. Prejudice is most frequently due to ignorance and lack of knowledge. Education should be concerned with the development of a feeling of relatedness of the inner self to the outside world. This sense of relatedness is implied in the broad religious and spiritual qualities or cultural attachments. We are not living in normal times; therefore, we cannot any longer afford a slow infiltration of knowledge from the educated few to the illiterate many. *All* of our young people must be morally armed for these trying times, against the inner confusion and spiritual collapse which the growing tides of reaction bring in their wake. If democracy is to survive, there must be prevalent an intelligent social altruism. In the field of morals, from the educational standpoint, the student's *attitude toward* his responsibilities is much more important than his intellectual equipment for those responsibilities. If the job of education means preparation of an individual for life, it necessarily implies development towards this nebulous goal of maturity, of becoming altruistic in the social sense. This carries with it the development of a high degree of personal discipline. The major difference between a child and a mature adult rests on this capacity to renunciate individual prerogatives for a higher altruism. There are imposed upon the individual self-disciplinary limitations which are necessary if people are to live harmoniously together.

Education in America today must reach out to thousands of bewildered young people who are attached by only tenuous threads to but little historical tradition, which will break down the sooner when the storm of unrest becomes more disturbing. Youth has found that while mankind has made solid advances in the conquest of nature, there has been no corresponding progress in the regulation of human affairs. Youth is asking whether the fragment of advance that has been made by our culture is worth defending. Loyalty and sympathy for the American culture must be developed through communal as well as through individualistic enterprises.

In this way, democracy can be safeguarded because it implies a greater, more actively participating experience, rather than taking this heritage for granted. In this way, sectarianism and factionalism, which stand as insurmountable obstacles to any effort toward unity, may be dealt with. Religion, in its broader aspects, still has its progressive rôle to play in the scene of human affairs. There are definite survival values for people in its assets and its spirit has not yet outlived its usefulness. Recognition of the permanency and pragmatic significance of religion will grow upon young people if we will but make an effort to awaken them to this realization and if we, on the other hand, cease to be schismatic in our religious behavior. Another approach is the inculcation and encouragement of the aesthetic qualities of the higher creative capacities of the mind, expressed in the arts, in literature and in the sciences. With the increasing burden of sacrifice imposed on young people, they must develop compensatory satisfactions for these deprivations. The fulfillment that can come through the creative capacities or participation of an individual in social altruism consists in his sharing in the emotional understanding of others, thereby making his own individual problems seem less insurmountable.

Another important provision in this long-time view of education for youth today is training in logical thinking. This implies understanding of cause and effect relationships, ability to reason out one's own problems and to profit by experience. It implies furthermore the development of a strong foundation of good learning habits. The training of youth in logical thinking and good learning habits implies a broad program of education in the social sciences as well as the physical sciences. Moreover, it utilizes the individual's capacities by vocational guidance. A broad study of the redistribution of occupations due to unemployment, the crowding of the professions, seasonal occupations, and other socioeconomic factors is essential. In these problems youth has a vital stake and a heroic rôle to play in the future. Much of the maladjustment of youth can be traced to the aimlessness that has characterized his education. We must recognize the fact that the enrichment of the personality through an intensive educative program acts as a stabilizing force during the most crucial period of physical and mental development. The vocational difficulties loom as the foremost and the most perplexing, as a result of unemployment, insecurity, anxiety about the war, the increasingly high level of educational standards in many fields, decreasing demand for skill in routine jobs, and the general condition of economic strangulation. Opportunities for marriage and home life are unfortunately precarious for young people today. Our interest should be drawn to the startling announcement that our country has the largest amount of crime in the world and that the age peak of criminal activities centers around the twenty to twenty-four year period. It is under such disturbing conditions that youth becomes disillusioned with American ideals. Greater fear and emotional unrest are produced as he finds an outlet in movements that stress the "retreat from reason" as the only possible solution for the dilemmas of the day. Economic and social realities cannot be glossed over at a time when there is a grim realization that in them lie the very sources of our distress. To persist in doing so is but to drive young people toward those destructive agencies which promise to meet their demands.

It may be that with the defective social organization men have become embittered, revengeful and unapproachable. Is it possible that new generations, brought up more kindly and taught to have a respect for reason, will experience the benefits of culture early in life and have a different attitude toward it? Will they feel it to be their very own possession and be ready, on its account, to make the sacrifices in labor and in instinctual renunciation that are necessary for its preservation? No culture has yet discovered the plan that will influence all men in such a way, from childhood on. It may be asked where we are to obtain the numbers of superior, dependable and disinterested leaders, who are to act as educators of the future generation. One cannot deny the grandeur of this project and its significance for the future of human culture. Its necessity is securely based on the fact that man is equipped with the most varied instinctual predispositions, whose ultimate course is determined by the experience of early childhood. A certain percentage of mankind, owing

**to morbid predisposition, or to too great instinctual vigor, will always remain asocial. For the majority, however, we should not allow ourselves to be discouraged, for when a person has reached a crisis and has mobilized his best energies, he is better able to effect those measures which bring about changes for the better.**

If we view the past, we find that within a very short span of years much has been accomplished in developing American ideals and institutions. Perhaps it may be that through this very arduous and threatening situation a newer crystallization of meaning, a finer tempering of these institutions can take place. It is up to young people everywhere to assume their share of this responsibility. The fight can be glorious, and youth must take courage and have perseverance to obtain these objectives. It is upon their shoulders that this task particularly rests, and they should be ever watchful in the protection of those democratic ideals which required so much sacrifice for their attainment. Bloodshed may be unnecessary for their preservation if everyone keeps a stout heart and a deep conviction of the integral part that each can play. Kingsley Davis has aptly stated in his "Youth in the Depression"* that—

"Wherever we look in this perturbed world, no matter in what country, or under what flag, youth is stirring. The new generation has become self-conscious, conscious that it has problems and that these problems are a part of world problems. Youth is stirring more actively and thinking harder in some countries than in others, but everywhere youth is on the move."

There can be no more important task for our educators than to capture the imagination of the youth of this great nation with a vision of American leadership in world affairs.

We cannot stand still nor go back to the obsolete ways of life, since belief in their authority and their sanctions is gone. We must go forward in faith and hope. We must try to gain real insight into the personalities of others and a more sympathetic awareness of them. No one is untouched by the situation, and no one is free from anxiety or the fervent need of reassurance and intimacy. When we seek to understand the influence of changing social, economic and political conditions upon the home and family, let us remember to go behind the housing, the conveniences, the draft, possible intervention of the United States in war and the thousand and one other sources of anxiety. Let us try to envisage the groping boy and girl who, amidst these changes, are seeking something stable and effective for those enduring human needs that we hope will some day find a new fulfillment in the good society which all this turmoil and confusion will produce.

*"Youth in the Depression" by Kingsley Davis, University of Chicago Press.

MSMS

# Chemotherapy in Acute Hematogenous Osteomyelitis

## A Case Report

**B. J. Fieldhouse, M.D.**
**Ida, Michigan**

B. J. Fieldhouse, M.D.
*A.B., Lake Forest College 1932. M.D., Northwestern University Medical School, 1937. Member of: Staff Mercy Hospital, Monroe, Michigan; Associate Staff Flower Hospital, Toledo, Ohio; Michigan State Medical Society.*

■ It has been only in the past few years that chemotherapy has come to play an important rôle in the treatment of acute osteomyelitis. The literature fails to record any early case reports with the use of prontosil in the early days of this sulfonamide. Weidekamp[6] reported its use in tuberculosis of the bone with failure. Since 1938 the literature shows an increasing number of reports on the subject. Mitchell[5] recorded one of the earliest groups of cases with the use of Uleron, a sulfonamide, dimethyl disulfanilamide, and had good results.

The problem of the rôle of surgery with chemotherapy has been a much disputed subject in the treatment of acute hematogenous osteomyelitis. Key and Wilson[3,7] discuss this very subject. Key believes it better surgery to operate early. He states that full doses of sulfathiazole should be given until the fever has subsided and that it is not to be expected that the drug will reach the focus in the bone in sufficient concentration to be effective because the focus contains large numbers of bacteria and is separated from the general circulation by the relatively impermeable wall of inflammation. Consequently, in his opinion, the

bone should be drained early whether or not the drug is used. Wilson on the other hand advocates a delayed operation believing chemotherapy "should delay the hand of the surgeon for a short time while the patient musters his own protective forces." Both agree, however, on the value of sulfanilamide in the streptococci and sulfathiazole in the staphylococci infections in bone and point to the importance of first determining the infecting organism. Dickson[1] reports a similar stand in the initial use of sulfathiazole at least three days prior to surgery.

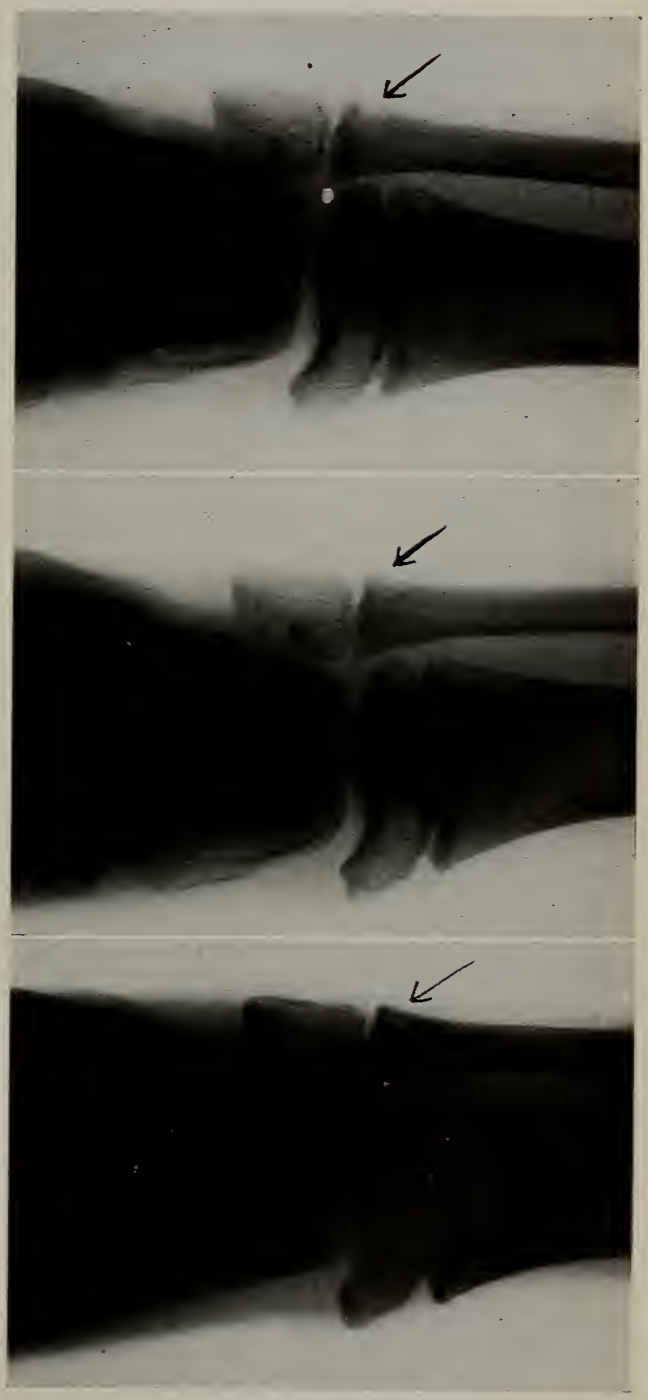
In view of the controversy of the rôle of chemotherapy in acute osteomyelitis some reports indicate that the drugs may eventually play the major rather than the minor rôle in treatment. Long and Bliss[4] state: "We have yet to see a patient suffering from acute hemolytic streptococcus osteomyelitis whose infection was not cured when adequate therapy with sulfanilamide was instituted." Hoyt,[2] using sulfathiazole alone in nine cases treated non-surgically, had only one case develop any drainage and all cases returned to normal activity and are all in excellent condition. It is to be expected that it will take further study with chemotherapy to determine how much we can depend upon its use in the treatment of a disease with a varying degree of severity.

## Case Report

L. H., female, aged six years ten months, weighing 60 pounds, presented herself on March 15, 1941, complaining of pain, swelling and redness of the right ankle. These symptoms were first noticed twenty hours before she was seen. During this interval she had chills and fever and could not bear weight on her right foot because of the intense pain. The mother stated that ten hours after the onset of symptoms the temperature was 101.5

On examination the patient appeared somewhat toxic with flushed cheeks, pulse 108 and a temperature of 103.5. The external portion of the ankle showed moderate swelling, redness, local heat revealed by touch and tenderness too great to allow palpation. On the heel of the same foot a pea-sized blister containing a nearly dried yellow pus was seen. There was no other evidence of a source of infection. A diagnosis of acute osteomyelitis was made and sulfathiazole was begun.

Within the first twenty-four hours the patient received 38.5 grains of the drug and 22.2 grains every twenty-four hours thereafter until the temperature was normal for five days. The patient was seen again the next day in the office and her temperature was 101.5, being less toxic and taking more food. The third day the temperature was 100.5 and the following day 99.2 and on this day she developed pain in the left knee which lasted about three hours and never recurred. By the fifth day the temperature was normal and there was little swelling but some tenderness to deep pressure and tapping. Fourteen days after the onset of treatment she developed an upper respiratory infection with a temperature of 99.5 so the drug was continued three days longer after which time she made an



Figs. 1, 2 and 3.

uneventful recovery and returned to school three and one-half weeks following the onset of the disease. She never had any toxic reaction to the drug and her blood remained within normal limits.

Two weeks after the onset of symptoms, March 29, 1941, the first radiograph revealed an osteomyelitis of the lower end of the fibula with a destructive process perforated through the cortex and a small spicule of bone in the soft tissue. Two weeks later, April 12, 1941, the radiograph revealed "healing of the osteomyelitis in the lower end of the fibula." Then six weeks following the onset of symptoms, June 10, 1941, a third radiograph revealed continued healing of the osteomyelitic process with the defect almost obliterated and the sequestrum disappeared.

## Summary

1. A case of acute osteomyelitis in a child is reported with recovery following the use of sulfathiazole as the only active treatment.

2. A review of the value of chemotherapy as expressed in the literature is presented.

3. It remains that nice judgment will be needed to determine the therapy used in the treatment of acute osteomyelitis with some indication from this case and other reports given that drugs will play a more important rôle in the future.

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MSMS

## KEEP WORKING, KEEP SINGING—AMERICA

* * * It is difficult for most of us, as we go about our daily tasks, to realize how grave the challenges are that face our country—how vital the problems that must be solved, if we are to preserve those things we hold most dear—those things that generations have worked, fought and died for.

Yet each passing month underscores these grave realities.

And each passing day must find us more firmly resolved to preserve our hard won freedoms—come what may.

To this end America—and each of us individually—must accept a responsibility and an obligation as great as that which our forefathers faced during every critical period in the history of our country.

We must bend every nerve and sinew to produce.

We must be able to pit our power to create and build against the power of those who would tear down and destroy.

We must be prepared to match the physical strength of our system of free enterprise against the power of every other system.

These are the forces that created our freedoms—

the gospel of WORK
the doctrine of FAITH
the spirit of LIBERTY
the GENIUS that is AMERICA

—they, alone, will preserve these freedoms now.

This country of ours didn't just happen. Generations of men and women worked here—free men—free women. With determination in their hands and songs in their hearts they built something.

Work blasted and hammered and axed a path through the wilderness. Work raised to manhood a new race of pioneers. Work tore from the raw rock the metals of industrial greatness. Work met and conquered the prairie blizzard and the desert sun. Work lifted the path of the iron horse across the High Sierras and flung rafters of steel against the sky.

Work and the will to work created the greatest nation on earth—and a way of life more bountiful and more generous than any other the world has known.

Work—the work of free men—of men and women who sing as they work as free men should—that was our past.

Today the battlefields on which our freedoms must be preserved include the assembly lines of Detroit—the blazing mills of Pittsburgh—the laboratories that seek and find—the harvest fields of the great Northwest—the plains of Texas—the railways that web the continent—the highways on which the nation moves.

Every man — every woman — every corporation in America has work to do. It is the sum total of this work—and the extent to which it is carried through—that will measure the future American way of life.

But—something more must follow along. With this work must flow the spirit of America. In this work must be the heart of America. Out of this work must come the free song of America.

. . . and so the House of Squibb, in its radio program from coast to coast, says to the nation:—Keep Working . . . Keep Singing . . . America.

To remind America of its great responsibility—of its sacred heritage—of the necessity to leave no stone unturned to strengthen the character and defensive power of this our nation.

We hope that you who are a part of the House of Squibb will listen to these programs whenever you can. We hope you will believe in them and become a part of them. And if you believe in them, we hope you will go out and speak about them . . . to your friends, the doctors and druggists . . . to everyone you meet.

And we hope that you and they will be a continuing part of this program, raising your voices too, with strength and with conviction, saying:—

**KEEP WORKING, KEEP SINGING—AMERICA**

Lowell P. Weicher, *President*
E. R. Squibb & Sons

# Estrogenic Hormone for X-Ray Burns

By Charles W. Sellers, M.D.
Detroit, Michigan

CHARLES W. SELLERS, M.D.
*M.D., Wayne University College of Medicine, 1917. Member of the Staff of Grace Hospital, Detroit. Member, Michigan State Medical Society.*

▪ EVER since Dr. Roentgen devised the x-ray apparatus, unwary operators of this equipment have been exposed to the possibility of giving or receiving overdoses of the ray. Various people tolerate varying exposures but everyone evidently has a threshold beyond which they cannot tolerate the ray without destruction of tissue.

Small repeated exposures cause persistent dermatitis while larger doses, often a single dose, causes complete destruction of the skin with resulting ulcers that are exceedingly painful, irritating and resistant to treatment. Patients and operators exposed sufficiently to cause typical and severe x-ray burns usually experience these lesions for a long time.

The treatment of these "burns" has been somewhat empirical, largely symptomatic and entirely unsatisfactory. Treated as other burns they gradually improve but entirely too many fail to recover completely and persist as indolent ulcers, *ad infinitum.*

Favorable results with the use of estrogenic hormone in oil in three cases that came under my observation prompt me to report them.

On June 28, 1940, a patient came to me with a small piece of glass imbedded in the left small finger. It had been there for several months and caused considerable pain on pressure. It was visible under the fluoroscope. A small incision was made under novocain anesthesia and it was removed by grasping it with a small forceps guided with the aid of the fluoroscope. The whole process may have taken two minutes. The x-ray was a new portable type with transformer and tube in a single case. The meter readings were those ordinarily used for fluoroscopy. Evidently, however, we were too close to the tube because two weeks later both the patient and I developed typical x-ray burns of the fingers.

Treatment of a conventional nature over a period of ten months failed to see them entirely healed. The patient and I each had a small ulcer about one-half inch in diameter on a finger. We used tannic acid ointment, Aquaphor, cod liver oil ointment, vitamin A ointment, maggot extract ointment, allantoin, Nupercainol, allantoin and urea ointment, scarlet red ointment, silver nitrate applications, etc., all with but slight avail.

At the beginning of the eleventh month estrogenic hormone in sesame oil 10,000 units per c.c. was used as a topical application on the assumption that it might stimulate proliferation of tissue. A few drops were placed in the crater of the ulcer and a dressing applied three to six times daily. Improvement was noticed within fifteen days. Curious to know whether it was the hormone or the oil that was helping I secured pure sesame oil and used it for a similar period without visible results. I then used estrogenic hormone in peanut oil and in corn oil each with visible improvement. After approximately thirty days continuous treatment the ulcers on both the patient and myself were healed.

A third case involving an x-ray burn and ulcer of a left index finger was treated from the beginning in a similar manner. It healed over in two months' time, which is much less than usual.

Three favorable cases do not make a criterion but there seems to be some value in this treatment and further observation and trial are warranted.

MSMS

**WILL REPORT "POLIO" RESEARCH IN NEW YORK**

Dr. Harry M. Weaver, of the Wayne University College of Medicine staff, will read to the National Foundation for Infantile Paralysis, December 4, in New York City, a report of research work carried on for 18 months at the college on poliomyelitis.

The Foundation provided the funds for the Wayne research, in which possible effects of vitamin deficiencies upon susceptibility to the disease have been studied. Eastern cotton rats, the only creatures besides primates which are susceptible to "polio," have been used as the experimental animals. The work is now continuing under a recent renewal of the original one-year grant. —*Wayne University Newsletter,* December 3, 1941.

DAVID WHITNEY HOUSE

THE Wayne County Medical Society now has its own permanent home, the beautiful David Whitney House at 4421 Woodward Avenue, Detroit, which the Society has occupied during the past ten years. The Society received the home in conveyance from the Whitney family of Detroit, as a 1941 Christmas present. Mr. David C. Whitney, with Mrs. Whitney and his niece, Mrs. Pinkney Tuck, was the owner of the property. Acceptance of the deed by the Society's Board of Trustees and Council was approved by the membership at the regular meeting of the Society on December 1.

The deed conveying the David Whitney House to the Wayne County Medical Society recites that the Whitneys have long had and still enjoy and desire to foster close association with the members of the medical profession, for which they have the highest regard. They desire to increase the facilities of the profession and to aid in advancing medical standards by providing the Society with a dignified home of its own where it can carry out its charitable, educational and scientific purposes.

In thanking the Whitney family and Nathan T. Viger, secretary of the Whitney Realty Company, C. E. Simpson, M.D., president of the Wayne County Medical Society, wrote: "Yours has been a grand contribution to the greatest thing that ever has happened to further the scientific, educational, and charitable activities of the medical profession as a group in this community. The Society and its officers thank you sincerely."

# WAR HAS COME

President's

Page

ON a recent Sunday afternoon, at a time when most of us had finished our dinners and were starting to look at the newspaper, came the startling report of an attack upon the United States by an aggressor nation. It seemed unbelievable, but it was true. From every indication the struggle will be protracted, it will require an "all out" effort of every citizen of the nation.

The record of the medical profession of Michigan in the last world war was an honorable one. The tradition maintains. Each of us, in the past few weeks, has been giving some thought as to what his own rôle will be in the present war.

Well over three hundred Michigan physicians are already on active duty with the armed forces of the nation, a number which ranks high among the states. All credit to them for their prompt response in our country's preparedness program.

And now among the first calls will be one for more of our doctors of medicine. We should make our plans promptly as to how we may best serve the country.

Our Medical Preparedness Committee under the active chairmanship of Past President Urmston has already held a number of meetings, and has taken active steps in several phases of the defense program. The physicians of Michigan will again lead in service to their country as they did during the first world war.

Henry R Carstens

President, Michigan State Medical Society

# EDITORIAL

## YOUR OPPORTUNITY

**At the request of Dr. Fishbein, this editorial, which appeared in the Journal of the A.M.A., December 27, 1941, is reprinted. A copy of the blank by which each physician may place his name with the Procurement and Assignment Service has been printed on page 64.**

■ THE nation is at war. The Congress has passed an amendment to the Selective Service Act which will call for registration of every man up to the age of 65 and which will place all men under 45 years of age subject to service at the order of the Selective Service boards.

The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was established by order of the President on October 30. Thus the medical profession itself aids in determining proper distribution of the medical profession in supplying the needs of the armed forces and maintaining medical service to civilian communities, public health agencies, industrial plants and other important needs.

At a meeting of the Procurement and Assignment Service held in Chicago at the headquarters of the American Medical Association on December 18, jointly with the Committees on Medical Preparedness of the American Medical Association, the American Dental Association and the American Veterinary Medical Association, plans were drawn for making immediately available to the United States Army and Navy Medical Corps the names of physicians who wish to be enrolled promptly in the service of the government in this emergency.

On page 2255 is published a blank by which every physician may at once place his name with the Procurement and Assignment Service as one who is ready to serve the nation as the need arises. If you wish to make yourself available for classification, fill out this blank and send it at once to Dr. Sam F. Seeley, Executive Director of the Procurement and Assignment Service. When these blanks are received, they will be classified and checked with the information available in the national roster of physicians at the headquarters of the American Medical Association.

For two thousand and nine counties in the United States, lists have been prepared indicating physicians who are engaged in necessary civilian projects, public health services or educational activities from which they cannot be spared. Shortly the rest of the counties will have such lists available.

In each of the corps areas covering the United States a committee is being established, including representatives of medical, hospital, educational, dental and veterinary activities. In the individual states, committees of medical, dental and veterinarian professions are being established through which the corps area committees will exercise their functions. In each county also local communities will provide accurate information regarding the status of each member of the profession concerned.

The raising of the Selective Service age from 28 to 45 will place a great number of additional physicians in the category of those on whom the nation may call as their services are needed. Estimates indicate that some sixty thousand physicians thus become available for service and that forty-two thousand dentists under the age of 45 also become subject to call. By enrolling with the Procurement and Assignment Service immediately, utilizing the blank on the opposite page, all physicians, but particularly those under forty-five years of age, insure to every extent possible, assignment to the type of service for which they are best fitted. They avoid thus also the possibility of unclassified service with the United States Army during the period that may be necessary following selection by the Selective Service before the commission can be secured. A physician called by the Selective Service who has not enrolled or who is not on a reserve list obviously serves without a commission during the time that necessarily elapses before a commission is secured. In future issues of *The Journal* announcements will be made regularly of the numbers of those who enroll and of the extent to which the immediate needs of the Army, Navy and other government agencies are being supplied.—Editorial, *Jour. A.M.A.*, December 27, 1941.

## REMEMBER PEARL HARBOR

■ STORIES of heroism and valor of the officers and men in the armed forces of the United States during the treacherous attack on Pearl Harbor have begun to seep through but it is likely that the usual "work under fire" of the Medical Corps will not be considered of sufficient news value to be spread on the pages of the magazines and daily papers. It is probable that the doctors of medicine and nurses went at their work in the same routine as during peace. Romance and thrill are necessarily subjugated to a work needed to be done in an expert manner.

Pearl Harbor brought us out of our lethargy just as a cold towel sobers an hysterical child. We are at war and it is to be a long hard war. The citizens of the country have responded nobly to the call for arms. The recruiting offices are overflowed and every citizen is asking, "What can I do to help?" Medical men have been slow in answering the country's need for medical officers. There were many reasons in the past for this dilatory attitude, *but not now.*

### We are at war!

Major John G. Slevin writes:

"Even before war was declared the Army was short 2,000 medical officers! For every additional million men called to the colors the Army will need 8,000 more medical officers, not counting replacements. In the present rush to enlist, the younger physicians, those under thirty-five, have been conspicuous by their absence. Only when pushed by the local draft boards with the threat of induction into the Army as privates, have they made any effort to obtain commissions. In contrast, the older doctors, those from forty-five to sixty, have sought to serve their country. These are facts which we as medical men wish weren't so. But they are facts nevertheless.

"Will American medicine finally fail to heed our Nation's call? The answer rests with the junior members of our profession.

"The Army needs doctors. Not just the 2,000 that would do last month, but very soon now eight or ten times that number.

"The Army will get doctors—somehow. Let us hope it will be by the traditional method of American medicine, by volunteers.

"So that there can be no question as to who is eligible to apply for a commission, may I ask you to publicize the following information:

"To be eligible for a commission, physicians must be between the ages of 21 and 35; American citizens; graduates of Class 'A' medical schools; licensed to practice medicine in a state or territory of the United States; actually engaged in the ethical practice of medicine and able to pass the required physical examination.

"All commissions at present are granted in the Army of the United States for the duration of the War, in the original grade of First Lieutenant. No provision has as yet been made to commission certified specialists in grades above that of First Lieutenant.

"The salary of First Lieutenants (including allowances for quarters and subsistence) is $224.67 per month for single men and $262.67 per month for married men.

"Application should be made to Major John G. Slevin, Medical Corps, Medical Officer for the Michigan Military Area at 401 Federal Building, Detroit, Michigan, or to the District Executive, at one of the following Military Districts: Lansing, Kalamazoo, Grand Rapids, or Saginaw, Michigan. Each district office is in the local Post Office Building.

"Interns, including fifth year medical students who are interning, should apply for commissions now. The War Department has stated that interns will be allowed to finish twelve months of internship prior to being called to active duty. However, no deferment will be granted to those who hold hospital residencies."

Although the present regulations will take only physicians under thirty-five, many changes in these regulations are certain to be made.

Material benefits of obtaining commissions early are many but the true basic appeal is that your country needs you and needs you now.

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## CIVILIAN DEFENSE

■ P. R. URMSTON, M.D., past president of the Michigan State Medical Society and present chairman of the Medical Preparedness Committee of the MSMS, has been made chairman of the Committee on Emergency Medical Service for Michigan, which is a subcommittee of the Michigan Council of Defense, created by an Act of the 1941 legislature. This State Council of Defense functions with and through the metropolitan defense units which were designated by Fiorello H. LaGuardia, Chief of the Office of Civilian Defense of the United States government.

A meeting by Colonel Furlong and the Committee on Emergency Medical Service was held December 11 at which time assurance was given that doctors of medicine, nurses, and hospital staffs are ready to go into action on short notice. Present were representatives of the Michigan State Medical Society, Michigan Hospital Associ-

ation, Michigan Nursing Association, Michigan Chapter of the American Red Cross, pharmacists of the state, and the Michigan Department of Health.

All hospitals are being surveyed to determine the maximum number of beds which could be made available in the event of disaster. Plans are being completed for the evacuation of convalescent patients to their homes or to outlying establishments in case of need.

**Each county, of course, has its own peculiar problems, and this Committee on Emergency Medical Service will serve both in advisory and administrative capacities. Doctors of medicine who are not available for services with the armed forces should rally behind this Committee and its work. There is a place for every physician in the present crisis and a doctor of medicine is needed for that place. If you have not been approached by your local Committee be sure to offer your services.**

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## THE VALUE OF MEDICAL MEETINGS

Conventions have become, more and more, an integral part of American professional and business life. From our observations, we believe that medical meetings, both local and national, stand at the top, from the point of view of worth-while programs for all who attend.

The medical convention provides an opportunity for the physician to get away from his busy routine of practice; to relax a little; to fraternize with his colleagues; and to learn much that will help him in his service to his patients.

A medical meeting with a carefully planned program offers a veritable refresher course, as leaders in their fields speak from the platform or conduct clinics, sharing with others the benefits of their experience.

The scientific exhibits, in recent years, have reached a new high, in bringing to the meetings demonstrations of the most recent advances in medicine and surgery. Thus the physician may keep in step with the changes which are taking place with almost kaleidoscopic rapidity.

Last, but not least among the attractions at the larger meetings, should be mentioned the technical exhibits, where ethical pharmaceutical manufacturers and other purveyors to the profession exhibit the latest products, developed to serve the physician. Here the physician may talk leisurely, free from waiting patients and sick calls, with well informed representatives of the leading houses.

All in all, the medical convention spreads out before the attending physicians the results of millions of dollars' worth of clinical and laboratory research. Those who attend and those who participate do much to advance the cause of alleviating human ills.—*Patchwork,* Nov.-Dec., 1941.

## ENROLLMENT FORM FOR PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS

Dr. Sam F. Seeley, Executive Officer
Procurement and Assignment Service
New Social Security Building
4th and C Streets S. W.
Washington, D. C.

Dear Doctor Seeley:

Please enroll my name as a physician ready to give service in the Army or Navy of the United States when needed in the current emergency. I will apply to the Corps Area commander in my area when notified by your office of the desirability of such application.

Signed.....

1. Give your name in full, including your full middle name:
2. The date of your birth:
3. The place of your birth:
4. Are you married or single?
5. Have you any children? If so, how many?
6. Do you believe yourself to be physically fit and able to meet the physical standards for the Army and Navy Medical Corps?
7. Have you filled out previously the questionnaire sent to all physicians by the American Medical Association?
8. When and where were you graduated in medicine?

.....

9. In what state are you licensed to practice?

.....

.....

10. Do you now hold any position which might be considered essential to the maintenance of the civilian medical needs of your community? If so, state these appointments:

.....

.....

.....

11. Have you previously applied for entry into the Army or Navy Medical Service? If so, state when, where and with what result (if rejected, state why).

.....

.....

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.....

.....

Signature .....

Address .....

Date.....

# You Are Going to Pay More Taxes

By Hazen J. Payette, LL.B.

*This article on Income Taxes is the second in a series of two written especially for* THE JOURNAL *of the Michigan State Medical Society by Mr. Payette, a member of the Detroit Bar, out of a wealth of experience with the Internal Revenue Code.*

IN last month's article, it was pointed out that a new tax bill affecting your 1941 income would most likely be passed the early part of 1942. Despite the fact that momentous happenings have occurred since that writing, it now appears reasonably certain that no new laws will be passed affecting your 1941 income.

### Deductions

Considerable confusion exists regarding the change in status of the first dependent in certain instances. In prior years a person (other than a married man living with wife) who was the head of a family and acquired that status because he maintained a home for one or more dependents, was permitted, in addition to his personal exemption, a credit of $400.00 for each dependent. Under the present law, no credit is allowed for that dependent who caused his status. Thus a widower who maintains a home for one dependent is entitled to an exemption of only $1,500.00. However, should there be two or more children for whom he maintains a home and only one of the children is classed as a dependent (due to age, for example), he is entitled to claim deduction for that child, as his status as head of the family is not occasioned solely because of its existence.

In order to claim a person as a dependent, that person must be under eighteen years of age or incapable of self-support because of a mental or physical deficiency. While no age has been set at which a person may be classed as physically defective, there have been instances where unemployed women of fifty and men of sixty have been accepted as dependents.

A question frequently asked is why the status at the end of the taxable year controls with regard to personal exemption and credit for dependents. This is true only when an Optional Return is filed. In filing the Regular Return you can claim deduction from the time your status changed. As an example, if a child reached his eighteenth birthday on December 1, the taxpayer is permitted to deduct 11/12ths of $400.00. Under the optional form no deduction whatsoever would be allowed as the child would not be a dependent at the end of the taxable year. However, if a child was born on December 1, under the regular form the taxpayer would be entitled to only 1/12th of $400.00, while under the optional form the full $400.00 exemption could be taken.

### Contributions

The law permitting deduction of contributions to religious, charitable, literary, scientific or educational organizations has not been changed and the only limitation imposed is that such contributions cannot exceed 15% of your net income before the deduction is taken. Incidentally contributions to the U.S.O. and the British War Relief Society are deductible. With regard to a joint return, the Supreme Court has held that the 15% limitation applies to the combined net income of husband and wife.

### Bad Debts

Experience has shown that deductions under this item were illegally taken by many taxpayers who generously closed old accounts and called them "bad debts." The rule is simple: if you reported the obligation as income for the year in which it was earned, it may be deducted in the year you ascertained it was worthless. While you are not compelled to institute legal proceedings, your decision must be made in good faith and you must stand ready to prove to the satisfaction of the Collector that such was the case.

As most professional men keep their books on a cash basis and report only that income actually received, their deductions for "bad debts" would be limited to those instances where the debt arose from the actual payment of money or the transfer of property, and the reason for declaring the debt bad must be other than their unwillingness to enforce collection.

In recent years the Treasury Department has taken a serious interest in "bad debt" deductions and many taxpayers have been questioned regarding this item. The procedure is generally to check the debtor's income tax return, to ascertain if the debt had been reported by him as an item of income. As this will no doubt occur more frequently in the future because of the lowered exemp-

tions, it is suggested that when one makes a deduction under this item, he not only includes the name and address of the debtor, but the reason that the debt is declared uncollectible. This might save the taxpayer a trip to the Collector's office at a subsequent date.

### Compensation Earned Over a Period of Years

An amendment to the Act made in 1939 recognized the fact that some taxpayers, although operating on a cash basis, are not compensated until the completion of their services and therefore should not be required to report the entire sum received as income for that year. Previous to this Amendment, one was required to report all sums received during the taxable year regardless of when they were earned. This resulted in a hardship for persons such as inventors and authors who were not permitted the allowable deductions for the years spent earning this compensation. It is now possible to allocate the amount received in equal portions over the years in which it was earned and pay the additional tax required for each of those years. However, to apply this rule—

> The services for which the compensation was received must have been rendered over a period of five calendar years or more, and—
>
> Not less than 95 per cent of the compensation received must have been paid upon completion of the services.

There is no limitation on the period of years over which this allocation is permitted, the only restriction being that they must have been performed over a period of five years or more.

In the practice of medicine there are instances where claims have been presented to estates for services rendered over a period of more than five years and for which no compensation was received. The application of the foregoing provision in those instances would undoubtedly decrease the tax payment considerably.

### Interest on United States Bonds

Interest on government obligations may either be tax free, subject to surtax only if their total value is more than $5,000.00, or subject to both the normal tax and surtax. The category into which each obligation falls is controlled by its issue and classification. As most persons investigate the tax status of bonds before purchase, a listing of the various types and kinds would be of no benefit to the majority of readers.

A general impression prevails that U. S. Savings or Defense Bonds, which are issued at a discount and redeemable at increasing fixed amounts, are not taxable as they are noninterest-bearing obligations. Prior to the 1941 amendment, those persons who owned such obligations and reported on the accrual basis were required to report the increment in value each year, while those persons on a cash basis were obliged to treat the increased value as income received in the year of redemption or maturity. The 1941 amendment extends to persons reporting on a cash basis the privilege of reporting the increment in value, as it accrues. However, an election must be made in the taxpayer's return and when made, it applies to all obligations of this type owned, and is binding for all subsequent years unless special permission is obtained from the Commissioner to change the method of reporting. As these bonds increase in value every six months from date of purchase, if one desires to report on the increased value of these bonds, he is required to include in the first taxable year that he reports on the accrual basis, the increment in value from the date of purchase to the last accrual date of that year. Thus if the bond was purchased in June, 1940, the taxpayer's 1941 return would report its increased value as of December, 1941, as part of your gross income.

### Information Returns

If during the taxable year of 1941, a taxpayer has paid to any person for "interest, rent, salaries, wages, premiums, annuities, compensations, remunerations, emoluments, or other fixed or determinable gains, profits, and income . . . ," the sum of $750.00 or more, he is required to file a return known as Form 1099, giving such information together with the name and address of the recipient. However, if rent was paid to a real estate agent who acted for either the taxpayer or his landlord, it need not be reported. Likewise amounts paid for merchandise, telephone, et cetera, need not be reported. The return is designed to give the Department information on the income of others and must be filed prior to February 15, 1942.

### Treasury Notes

A new plan formulated by the Treasury Department this year permits the income taxpayer

to acquire interest-bearing Treasury Notes which in turn can be used to pay income taxes. These notes are of two groups: Series A, of $25.00, $50.00, and $100.00 denominations, earn about 1.92% per year and can be used in payment of income taxes up to $1200.00. Series B, of $100.00, $500.00, $1,000.00, $10,000.00, and $100,000.00 denominations, earn about 0.48% per year and are acceptable in payment of income tax in any amount. These notes are not registered but the name and address of the purchaser is noted thereon and they can be used only by him in the payment of his Federal Income taxes. However, if they are not used, they can be redeemed by him at the purchase price. The income from these notes is taxable.

### Conclusion

In filing a return for this year, it will be well to bear in mind that the Amendments of 1941 were designed to add considerable revenue to the treasury. It is accordingly assumed that in addition to checking on those persons who may have eluded the Collector heretofore, all returns will be scrutinized with unbending minuteness to ascertain their authenticity and ferret out the potential tax. Returns therefore should be logical, consistent and plausible, as one unreasonable item of deduction might cause the examiner to doubt the authenticity of the whole return. It has been our experience, however, that a perceptibly true report will cause little or no trouble to the taxpayer and should he be called in for an explanation of certain items, he will find the examiner ready to give credence to his statements. After all, the examiner is just another working man who must conserve the interests of his employer.

717 Ford Building
Detroit, Michigan

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What happens to a woman in London who has a baby and reports the fact in the press is set forth by a columnist in *The New Statesman and Nation:* "Within 48 hours of the announcement my friend had received five letters from (obviously professional) begging-letter writers, three singularly impertinent circulars, with a 'You Have Been Warned' flavor, from vendors of contraceptives, four sets of sample postcards illustrated with a nauseatingly sentimental decor of storks and gooseberry bushes with the correct place-name and data for use in replying to 'kind inquiries,' plus a dozen or more appeals for funds from reputable maternity hospitals all over the country."

**Hanovia Luxor "S" Alpine ULTRAVIOLET Lamp FOR THERAPEUTIC USE**

**Doctors whose practice includes obstetrics, internal medicine, dermatology, pediatrics or orthopedics will find frequent use for this efficient modality.**

**Its Wide Range of Clinical Usefulness Includes the Following:**

**SKIN DISEASES:** Ultraviolet radiation acts specifically on lupus vulgaris and often has a beneficial effect in such conditions as acne vulgaris, eczema, psoriasis, pityriasis rosea and indolent ulcers.

**SURGERY:** Sluggish wounds that do not heal or are abnormally slow in healing may respond favorably to local or general irradiation.

**CARE OF INFANTS AND CHILDREN:** The prophylactic and curative effects of ultraviolet radiation on rickets, infantile tetany or spasmophilia and osteomalacia are well known.

**PREGNANT AND NURSING MOTHERS:** Prenatal irradiation of the mother, and also irradiation of the nursing mother, have a definite preventive influence on rickets.

**TUBERCULOSIS:** Irradiation is of distinct value for patients suffering from tuberculosis of the bones, articulations, peritoneum intestine, larynx and lymph nodes or from tuberculous sinuses.

**OTHER APPLICATIONS:** As an adjuvant in the treatment of secondary anemia, irradiation merits consideration. Also exposure of the lesions of erysipelas and a wide area of surrounding tissue has been shown to have a favorable effect.

*Write for full details about the Luxor "S" and other recent Hanovia developments.*

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**5013 Woodward Ave. Detroit**

# ✶ YOU AND YOUR BUSINESS ✶

## THE MSMS WAR AND DEFENSE EFFORTS

*Emergency Medical Field Units*

The Chief Medical Officer of the Office of Civilian Defense, Washington, D. C., telegraphed the following important communication to the Michigan State Medical Society on December 10:

"Office of Civilian Defense requests you urge all hospitals to establish immediately Emergency Medical Field Units in accordance with plans outlined in Medical Division Bulletins Number One and Two and drill weekly. Where necessary, Reserve Field Units should also be organized with medical, nursing and trained volunteer personnel derived from the community. Urge immediate action."

P. R. Urmston, M.D., Bay City, Chairman of the MSMS Medical Preparedness Committee, sent immediate messages to every county Medical Preparedness Committee urging that Emergency Field Units be organized at once, and that the Chairman of the county Preparedness Committee take the lead in this program; further, that Reserve Field Units be established where necessary.

*MSMS Active in War and Defense*

1. The MSMS Medical Preparedness Committee recently mailed a questionnaire to every practicing physician in Michigan, in order to facilitate its work especially in those matters pertaining to the important subject of Civilian Defense. The information to be obtained from these questionnaires will be of tremendous value both in the Civilian Defense and in the War efforts. Each Doctor of Medicine in Michigan is urged to coöperate by executing his questionnaire and returning it to his county Medical Preparedness Committee.

The Medical Preparedness Committee also has been active in encouraging the procurement of 800 medical officers, 100 immediately and 700 in the near future:

(a) by a campaign in the county medical societies;
(b) through the encouragement of junior and senior medical students to seek appointments in the Medical Administrative Corps of the Army or the Medical Department of the Navy;
(c) through the hospitals, where hospital administrators are urged to encourage interns, residents and staff members (under 35 years of age) to apply for commissions in the Medical Reserve Corps.

2. The MSMS Child Welfare Committee has been working on the matter of Child Health in War, which important subject is divided into (a) the problem of child health in defense areas; (b) the problem of child health in war and the evacuation of children from war areas.

3. The MSMS Industrial Health Committee is (a) coöperating in the American Medical Association's study of states which has been inaugurated in Michigan. This survey of industrial health problems will uncover the flaws of industrial health in the essential industries of this state, and attempt to eliminate them in the interests of the war and defense efforts.

(b) A survey of doctors of medicine in industrial practice is being concluded by the Industrial Health Committee in order that necessary professional personnel to serve the country's industry, in the present emergency, will be available.

In addition to the organized activity of the MSMS, approximately 200 Michigan Doctors of Medicine have joined the armed forces of the United States during the past year. This will soon be increased to 1,000 medical officers from this state.

The medical profession of Michigan neither is now nor ever will be found wanting in the war and defense efforts of this country.

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**Buy U. S. Defense Bonds and Savings Stamps**

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## MICHIGAN USE TAX

The Michigan Use Tax Law, Act 94 of 1937, has recently been upheld by the Michigan Supreme Court. It now becomes effective as applied to Doctors of Medicine and other practitioners, as well as the general public.

The tax covers purchases made in another state.

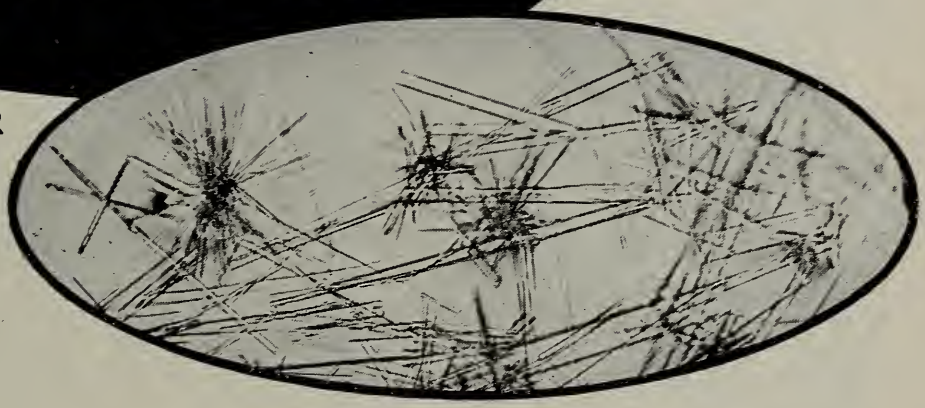
*(Continued on Page 70)*

# *The* S.M.A. *Corporation*

# ANNOUNCES

# *Biotin*

METHYL ESTER
($C_{11}H_{18}N_2O_3S$)



## *Previously Unavailable Factor of the* B-COMPLEX

• Crystalline Biotin methyl ester, isolated and purified in our laboratories, is now ready for distribution in limited quantities for research purposes. This previously unavailable factor of the vitamin B complex is offered as a solution quantitatively prepared from crystalline biotin methyl ester and as such is suitable for standardization procedures. It is not available in dosage form, but is supplied in 1 cc. ampules, each containing 25 micrograms, for investigational use only.

A review of the literature on Biotin, prepared by our technical staff, is available in booklet form to those interested in nutritional research.

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PRODUCERS OF S-M-A
(FOR INFANTS DEPRIVED OF BREAST MILK) *and*

*Nutritional* SMACO *Biochemicals*

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For the treatment of
Nervous and Mental Diseases
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*Licensed for*
*The Treatment of Mental Diseases*
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*Accredited by*
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*The Ohio Hospital Association*

Housebook giving details, pictures, and rates will be sent upon request. Telephone 2140. Address,

**SAWYER SANATORIUM**

White Oaks Farm

**Marion, Ohio**

*(Continued from Page 68)*

The Act provides for a levy of three per cent of the purchase price of any and all tangible personal property stored, used, or consumed in Michigan, on which an equivalent sales tax has not been paid *in this or any other state.* Therefore, it is not collectible against those who have paid an equivalent sales tax in Michigan or any other state.

The Use Tax does not attach to receipts from services performed by doctors of medicine. However, when Michigan physicians purchase supplies such as medicine, instruments, cabinets, fixtures, electrical appliances, furniture or other office or laboratory equipment for either professional or personal use, the three per cent Sales Tax attaches to all such domestic purchases within the state, and the three per cent Use Tax on all purchases made out of the state.

While all professional men wish to comply with the statute requirements of the Use Tax Law, most physicians would be glad to escape the labor and annoyance of bookkeeping and monthly remittances to the Michigan State Board of Tax Administration. The Board, therefore, suggests that physicians demand the Michigan registration of every out of state seller who would then be qualified to collect and remit the Use Tax in behalf of the consumer. To relieve doctors of both clerical work and mental worry, the Michigan State Board of Tax Administration recommends that the responsibility for the payment of the tax should be assumed by the out of state vendor, who can handle the bookkeeping more efficiently and more economically than the doctor of medicine. Where this plan is not used, a doctor liable for the payment of the Use Tax must register with the Michigan State Board of Tax Administration, keep accurate books, and make monthly remittances.

**Buy U. S. Defense Bonds and Savings Stamps**

## "MEANS AND METHODS ORDINARILY USED"

The Florida court recently reiterated a well-recognized rule regarding the liability of physicians for an incorrect diagnosis. The Florida court stated: "A physician or surgeon does not insure the correctness of his diagnosis. His responsibility is to use ordinary skill and diligence and to apply the means and methods ordinarily



*Say you saw it in the Journal of the Michigan State Medical Society*

and generally used by physicians of skill and learning in the practice of his profession to determine the nature of the ailments and to act upon his honest opinion and conclusion."

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**Buy U. S. Defense Bonds and Savings Stamps**

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## IS THE PRODUCT COUNCIL-ACCEPTED?

Products advertised in THE JOURNAL of the Michigan State Medical Society must, in every respect, conform to the requirements of the Councils and Committees of the American Medical Association.

Some firms detailing Michigan physicians have products which have not been presented to the AMA for approval. A number of these firms have requested space in the MSMS JOURNAL and in the Convention Exhibit, but have had to be refused.

Physicians will help their patients and their reputations if they insist on purchasing only AMA council-accepted products, and refer to the American Medical Association all firms which attempt to sell them unapproved equipment and supplies.

A good New Year's Resolution: "I shall buy only AMA Council-accepted products, to protect my patients and myself."

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**Buy U. S. Defense Bonds and Savings Stamps**

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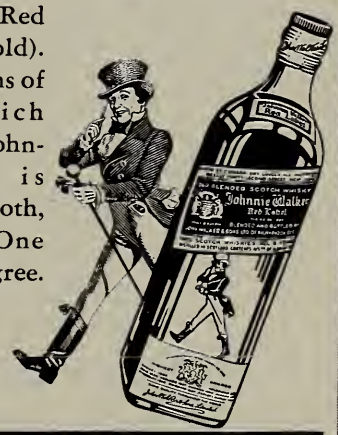
## DREAMING BY INFANTS EXPLORED IN RESEARCH

Evidence that dreams in children may occur before the development of speech is reported by Dr. Milton H. Erickson, assistant professor of psychiatry at Wayne University, in the current issue of the *Psychoanalytic Quarterly*. His report is a contribution to a difficult research field, in which conclusions are still on a tentative basis.

Previous studies have reported that dreams may occur in pre-talking-age children, but the evidence has been based upon sleep phenomena which may have been caused by physiological disturbance rather than psychic activity. Dr. Erickson believes that the case which he reports, involving the reconstruction by a sleeping eight-months-old baby of a play activity learned while fully awake, was evidence of the purely psychic phenomenon called dreaming.—*Wayne University Newsletter*, November 12, 1941.

# Why Johnnie Walker is Two People

FANCY THAT! There really *are* two Johnnie Walkers—one Black Label (12 years old), one Red Label (8 years old). Two fine versions of one truly rich whisky. For Johnnie Walker is Scotch at its smooth, mellow best. One sip and you'll agree.



BORN 1820 . . .
*still going strong*

WHEREVER YOU ARE
IT'S SENSIBLE TO STICK WITH

JOHNNIE WALKER

BLENDED SCOTCH WHISKY

BLACK LABEL 12 YEARS OLD

Both 86.8 proof

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Canada Dry Ginger Ale, Inc., New York, N. Y., Sole Importer

# MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

## HEALTH LABORATORIES GUARDED

State health laboratories at Lansing have been closed to the public and are under State Police guard as a national defense precaution. Employes have been fingerprinted and they have been given passes for admission to the grounds.

All of the antitoxins, vaccines and serums which are produced by the State Health Department for free distribution to physicians and health departments, are manufactured in the Lansing laboratories. More than two million doses are now produced in a year. In addition, more than 40,000 diagnostic examinations are made monthly in these laboratories.

MSMS

## HOUSE TRAILER PARK LAW

Michigan's new law governing the operation of house trailer parks is in effect and more than 500 park operators have been notified by the State Health Department of the requirements they must meet to obtain licenses.

The law makes definite requirements for toilet and shower facilities, sewage disposal, running water, electric lights and space for trailers. A trailer park is defined as one which accommodates three or more trailers.

If there is no full-time health department in the county or city where a park is located, the sanitation inspections will be made by the State Health Department sanitary engineers.

MSMS

## TWO DOSE TOXOID NEEDED

October and November outbreaks of diphtheria among older boys and girls in Oakland, Lenawee and Benzie counties emphasize anew the necessity of a second dose of toxoid.

Several years ago it was believed that one dose of toxoid gave protection against diphtheria from babyhood through childhood, but experience proved that the immunity from one injection of toxoid was not necessarily lifelong; in many children it dropped too low to protect them when they still needed protection.

As a result of the diphtheria outbreak in Oakland county, an extensive toxoid program was carried on in the schools to restore immunity in children where it had fallen low.

The two-injection plan of giving toxoid was officially adopted in 1939 by: the Michigan State Medical Society, the Michigan Branch of the American Academy of Pediatrics and the Michigan Department of Health. The recommended schedule is one injection of toxoid at nine months, a second a month later.

MSMS

## WRITE LEGIBLY

**Names and addresses precisely as written or typed by physicians and health departments on specimen blanks sent to the Bureau of Laboratories will soon become the mailing address of the report blanks returned by the laboratories at Grand Rapids and Lansing. In the past, clerks have copied the test information and addresses onto report blanks, but early in 1942 the Grand Rapids and Lansing laboratories of the State Health Department will put into use a photostat system for keeping these records and reporting them.**

**The laboratory results will be noted on the original blanks submitted with the test specimens, and in reporting the results, a photostat copy of the whole blank will be made. The name and address as written by the physician or health department thus becomes a mailing address and no corrections or additions will be possible under the new procedure. If a name or address is incomplete or illegible, it will still be incomplete or illegible when photostat copy is made. The photostat method will eliminate errors made formerly in copying results from laboratory blanks to report blanks.**

MSMS

## MUTINY ON THE BOUNTY

Buried beneath a mass of dry statistics, we noticed a report recently that our large "Foundations" are now devoting a third of their money-grants to medical research, medical teaching and other facets of the healing art. The same study also reveals that education, for decades the pet project of the "Foundations," has been ousted from the number one position by medicine. This solicitude is matched only by increasing government concern with medical care, and our profession is thus the victim of an embarrassment of riches.

Now this is all very flattering, and at first glance, very comforting. Second thought, however, reveals a faint cloud in the horizon. It seems that the man who pays the piper is still entitled to call the tune on any request program. Can it be that the philanthropists and politicians who are opening the purse, are also anxious to dictate the policies? Or is this petulant query just another Mutiny on the Bounty?—*The Journal of the Medical Society of New Jersey*, November, 1941.

# RADON SEEDS

FOR safety and reliability use composite Radon seeds in your cases requiring interstitial radiation. The Composite Radon Seed is the only type of metal Radon Seed having smooth, round, non-cutting ends. In this type of seed, illustrated here highly magnified, Radon is under gas-tight, leak-proof seal. Composite Platinum (or Gold) Radon Seeds and loading-slot instruments for their implantation are available to you exclusively through us. Inquire and order by mail, or preferably by telegraph, reversing charges.

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## Ferguson-Droste-Ferguson Sanitarium

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DISEASES OF THE RECTUM

**Sheldon Avenue at Oakes**
GRAND RAPIDS, MICHIGAN

**Sanitarium Hotel Accommodations**

### Bay County

The first meeting this fall was held on October 8, 1941, at the home of Mrs. A. D. Allen. Thirty-three members were present. The president, Mrs. W. R. Ballard, presided at the business meeting and gave an interesting report on the Fifteenth Annual State Auxiliary Convention in Grand Rapids. The recent election of Mrs. P. R. Urmston to the office of fourth vice president of the National Auxiliary was announced. The president announced the appointment of Mrs. Allen as chairman and Mrs. D. J. Mosier and Mrs. Edwin C. Miller as members of the Membership Committee.

Mrs. Harry B. Smith, dietitian at Bay City General Hospital, was introduced by Mrs. W. S. Stinson, and discussed the basic principles of nutrition.

Members of the Hospitality Committee were Mrs. Kenneth Stuart, Mrs. L. F. Laverty, Mrs. J. Norris Asline and Mrs. Paul L. DeWaele.

On November 12 a dinner meeting was held at the Elk's Club with seventeen members present. Mrs. Ballard conducted the business meeting and announced that John Sheldon, M.D., Ann Arbor, would speak at the public meeting early in January sponsored by the Auxiliary on "Allergy." Mrs. Urmston presented proposed revisions in the constitution, to be voted upon at the next meeting.

Mrs. Florence Davenport, director of the Civic League Social Service in Bay City, gave an interesting talk on "Nutritional Problems in the Low Income Group." The Auxiliary voted to collect clothes, toys and other items of value for Mrs. Davenport to distribute to the needy. Mrs. F. T. Andrews was made chairman of the committee.

### Genesee County

A board meeting was held on September 9, 1941, at the home of Mrs. Wm. B. Hubbard and delegates were named to the Michigan State Convention as follows: Mrs. Wm. B. Hubbard, Mrs. J. H. Curtin, Mrs. Stephen Gelenger, and Mrs. Hira Branch.

The first regular meeting was held at the home of Mrs. Arthur Kretchmar on September 30. Mrs. Hubbard presided at the business session. Mrs. J. H. Curtin, Mrs. Gordon Willoughby, Mrs. Stephen Gelenger and Mrs. K. R. Sandy reported on the recent State Convention. It was announced that Mrs. Willoughby, a past president of the Genesee County Auxiliary, had been made president-elect of the State Auxiliary.

Ruth Galliett was introduced by Mrs. Otto Preston, program chairman, and spoke on interior decoration. Mrs. Homer Harper and Mrs. Arthur McArthur served at the social hour which followed. Mrs. Vaughn Morrissey and Mrs. Edwin Vary were in charge of arrangements, assisted by Mrs. Hira Branch, Mrs. George V. Conover, Mrs. H. W. Woughter, Mrs. George Anthony, Mrs. Eugene Smith, Mrs. G. R. Backus, Mrs. Clifford Colwell, Mrs. Walter Rundles, Mrs. Gurdon Guile, Mrs. Preston, Mrs. Harper and Mrs. Kretchmar.

The October meeting of the Auxiliary was held on October 28 at the YWCA Building following luncheon. Clifford Colwell, M.D., spoke on the problems confronting the physicians in Genesee County. Mrs. Stephen Gelenger announced seven teams for Red Cross work had been formed, the captains of which were: Mrs. K. R. Sandy, Mrs. C. W. Colwell, Mrs. Harold Woughter, Mrs. Arthur Blakeley, Mrs. N. Arthur Gleason, Mrs. L. H. Childs, and Mrs. Alvin Thompson.

Mrs. Blakeley, Mrs. M. R. Sutton, Mrs. Robert Littler, Mrs. Herbert Randall and Mrs. James Houston were hostesses. Guests were Mrs. J. E. Livesay and Mrs. W. W. Bruce.

### Jackson County

A Membership Tea was held on October 14 at the home of Mrs. J. B. Meads. Seven new members were presented.

The regular meeting was held at the Hotel Hayes on October 21 beginning with dinner. The program consisted of three soprano solos, and a play "Have You Had Your Operation?" presented by members directed by Mrs. V. W. Badgley. Mrs. E. A. Thayer, president, conducted the business meeting.

The Projects Committee will direct a First Aid Course given by the Red Cross to Jackson County women. The course consists of twelve two-hour lessons with a Red Cross Nurse as instructor. A subscription to *Hygiea* was ordered sent to Fort Custer.

The November meeting was held at the Cascades Club House on the 18th beginning with dinner. Rabbi Bernard Zeiger gave a very interesting description of his trip to the South Sea Islands.

### Kalamazoo County

The first fall meeting was held on October 21 at the Fifth Division Officers' Club, Fort Custer. The wives of the officers of the station hospital were the hostesses. Mrs. W. H. Wiley was chairman in charge of arrangements, assisted by Mrs. Otis Graham, Mrs. S. H. Richmond, Mrs. Bartlett Crane and Mrs. R. K. Warnke. Mrs. Sherman Gregg, president, conducted a short business meeting at which reports of committee chairmen were heard. Following the business meeting bridge was played.

The November meeting was held at the Park American Hotel on the 18th and guests from surrounding counties were entertained. From 3 to 6:30 p.m. several tables of bridge were in play. Dinner was served to seventy-three guests at 6:30 p.m. Mrs. Wm. J. Butler, president of the State Auxiliary, Grand Rapids, was speaker of the evening, and was introduced by Mrs. Roscoe Hildreth.

### Kent County

The first meeting was held at the Women's City Club on October 8. Mrs. Charles Ingersoll, president, presided at the meeting. Mrs. John Burleson, *Hygiea* chairman, discussed *Hygiea* and obtained eleven subcriptions from members. Mrs. J. D. Miller, chairman of the Bulletin, told about its value to members. Mrs. Wm. J. Butler, state president, discussed the State Auxiliary Project, the Student Loan Fund and Hospitalization Insurance Plan for Doctors' Widows. Mrs. James K. Miller, Jr., gave a delightful review of "The Book of Maggie Owen." Tea was served with Mrs. Martin Batts and Mrs. J. W. Phillips presiding at the urns.

At the November meeting Mrs. Ingersoll presided. Mrs. Martin Batts announced that W. W. Bauer, M.D., of the American Medical Association, would visit Grand Rapids on December 9, speaking at Ottawa Hills High School, the Lions Club and presenting a broadcast at Station WLAV.

Following the business meeting Rev. Milton M. McGorrill spoke on "The Luxury of Thinking in a World Gone Mad."

A dinner dance was held December 6 at the Peninsular Club, Mrs. J. Donald Flynn acting as chairman.

# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

The membership of the Michigan State Medical Society as of December 1, 1941, is at an all-time high of 4,589.

**100 Per Cent Club for 1942**

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The above two county medical societies have certified 1942 dues for every member of their respective societies to be the first 100 per cent paid up counties for next year. Michigan State Medical Society dues for 1942 are $12.00.

THE JOURNAL of the Michigan State Medical Society can be relied upon for its authentic advertising. Readers may have faith in the advertisements in the MSMS JOURNAL. The products are A.M.A. Council-accepted.

* * *

*The Detroit Academy of Medicine* held its annual meeting at the Detroit Golf Club on October 14, 1941. Frederick G. Buesser, M.D., the retiring President, was host. J. Milton Robb, M.D., assumed the duties of President for the forthcoming year. Alfred D. LaFerte, M.D., was chosen as President-elect and Robert J. Schneck, M.D., as Secretary.

The Detroit Academy of Medicine was organized in 1869 by a group of twelve physicians and has been continuously active since that time.

*Harold A. Miller, M.D.,* Lansing, addressed the Lapeer Rotary Club in Lapeer on December 2, 1941.

Wm. A. Hyland, M.D., Grand Rapids, spoke to the Women's Club in Greenville on December 4, 1941, on "Cancer Control."

F. T. Andrews, M.D., Bay City, addressed the Saranac Lions Club in Saranac on December 15, 1941.

Cecil Corley, M.D., Jackson, spoke before the Hillsdale County Medical Society on December 16 on the subject of "Influenza."

* * *

*The Michigan Board of Registration in Medicine* reëlected the following officers at its Annual Meeting in Lansing on October 14, 1941:

President—Elmer W. Schnoor, M.D., Grand Rapids
Vice President—Claude R. Keyport, M.D., Grayling
Secretary—J. Earl McIntyre, M.D., Lansing.

Attorney General Herbert J. Rushton has appointed Mr. Milton G. Schancupp of Owosso, Special Assistant Attorney General, as Legal Counsel and Investigating Officer to the Board.

* * *

*A $100 cash prize, a gold medal and certificate of award* have been offered by the Mississippi Valley Medical Society for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner of medicine. Contestants must be members of the American Medical Association who are residents of the United States. Contributions shall not exceed 5,000 words, must be typewritten in English in manuscript form, submitted in five copies and received not later than May 1, 1942. Further details may be secured by writing Harold Swanberg, M.D., Secretary, 209 W.C.U. Bldg., Quincy, Illinois.


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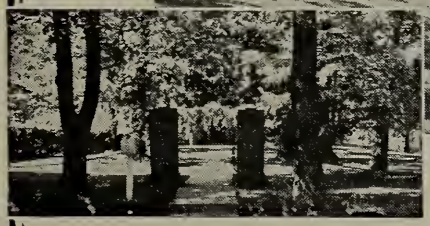

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MEDICINE—Two Weeks' Intensive Course will be offered starting June 1st. Two Weeks' Course in Gastro-Enterology will be offered starting June 15th. One Month Course in Electrocardiography and Heart Disease every month, except December and August.
FRACTURES AND TRAUMATIC SURGERY—Two Weeks' Intensive Course will be offered starting March 9th. Informal Course available every week.
GYNECOLOGY—Two Weeks' Intensive Course will be offered starting April 6th. Clinical and Diagnostic Courses every week.
OBSTETRICS—Two Weeks' Intensive Course will be offered starting April 20th. Informal Course every week.
OTOLARYNGOLOGY—Two Weeks' Intensive Course will be offered starting April 6th. Clinical and Special Courses starting every week.
OPHTHALMOLOGY—Two Weeks' Intensive Course will be offered starting April 20th. Five Weeks' Course in Refraction Methods starting March 9th. Informal Course every week.
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*"Doctors at Work"* is the name of the dramatized radio program broadcast by the American Medical Association and the National Broadcasting Company which went on the air beginning December 6, 1941, 5:30 to 6:00 p.m. EST. The program is being broadcast each Saturday evening over upwards of 75 stations affiliated with the Red Network coast to coast.

"Doctors at Work" is a continuation of the serialized story broadcast last year. The new series will resume where last year's story left off, with the marriage of the young physician and his subsequent life in time of national emergency in a typical medium-sized American city.

* * *

*Michigan physicians* were authors of articles in recent issues of *The Journal of the American Medical Association* as follows:

Reed M. Nesbit, M.D., and Wm. G. Gordon, M.D., Ann Arbor, "The Autonomous Neurogenic Bladder" issue of December 6, 1941.

Jack S. Chudnoff, M.D., Detroit, is co-author with Paul C. Hodges, M.D., Omar John Fareed, M.D., and George Ruggy, M.D., of Chicago of "Sodium Fluoride Poisoning" in the same issue.

F. H. Top, M.D., and D. C. Young, M.D., Detroit, wrote "Scarlet Fever" in the issue of December 13. 1941.

* * *

*The Professional Liaison Committee* representing the Dental, Pharmaceutical and Medical Professions, authorized by the 1941 House of Delegates of the Michigan State Medical Society, has been formed as follows: Representing the Michigan State Dental Society—

C. H. Jamieson, D.D.S., Detroit
Harry F. Parks, D.D.S., Jackson
F. D. Ostrander, D.D.S., Ann Arbor

Representing the Michigan State Pharmaceutical Association—

Jack H. Webster, Detroit
Bernard A. Bialk, Detroit
C. B. Campbell, Jackson

Representing the Michigan State Medical Society—

Allan McDonald, M.D., Detroit
Harrison S. Collisi, M.D., Grand Rapids
Fred R. Reed, M.D., Three Rivers

* * *

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The Ediphone Company, Grand Rapids, Michigan
H. G. Fischer & Company, Chicago, Illinois

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember *your friends* when you have need of equipment, medical supplies, appliances or service.

* * *

*Woman's Hospital, Detroit,* celebrated Hospital Day on December 3, 1941. Among the speakers on the program were Charles F. McKhann, M.D., Ann Arbor, on "Antenatal and Postnatal Influences on Physical and Mental Development of Infants"; Norman R. Kretzschmar, M.D., Ann Arbor, on "Intrauterine Oxygenic Exchange"; Willis D. Gatch, M.D., Indianapolis, on "The So-Called Toxemias of Burns, Peritonitis and Bowel Obstruction"; and Wm. A. Scott, M.D., Toron-



*Say you saw it in the Journal of the Michigan State Medical Society*

to, on "Observation of Some of the Difficulties of Gynecological Diagnosis." Following the banquet at Huyler's L'Aiglon Restaurant, Professor Preston Slosson, Ann Arbor, addressed the group on "Europe's Extremity as America's Opportunity."

* * *

*The Michigan Association of Industrial Physicians and Surgeons* has announced the elaborate plan for their annual meeting to be held in Flint, April 8, 1942.

The Program Committee consisting of A. H. Wittaker, M.D., chairman, of Detroit; C. P. McCord, M.D., of Detroit; F. B. MacMillan, M.D., of Detroit; L. H. Childs, M.D., of Flint; A. W. George, M.D., of Detroit; L. E. Sevey, M.D., of Grand Rapids; G. C. Penberthy, M.D., of Detroit; E. H. Hanna, M.D., of Detroit; and V. S. Laurin, M.D., of Muskegon, have promised a concentrated course in industrial medicine and surgery.

* * *

*The Annual Clinic Day* and Banquet of the Mount Carmel Mercy Hospital originally scheduled for January 28, has been postponed indefinitely because of the national emergency.

* * *

*The Michigan Pathological Society* held its annual meeting at the University Hospital, Ann Arbor, on December 13, 1941. Thirty were in attendance. The program included discussion of "Problem Cases," by Drs. E. F. Ducey, O. A. Brines, C. E. Black, G. L. Bond, A. A. Humphrey, W. M. German, H. Prentice, F. W. Hartman, S. E. Gould, and the showing of a colored motion picture by Dr. W. M. German, the title of which was "Colombia, South of Panama." The film was recently made by Dr. German on his trip to Bogota, Colombia.

The following were elected officers for the year 1942: President, Dr. H. E. Cope; President-elect, Dr. H. Prentice; Secretary-Treasurer, Dr. D. C. Beaver; Councillor, Dr. Edgar H. Norris.

The February meeting will be held on February 14, at Lansing, where the Society will be entertained by Dr. H. E. Cope and Dr. C. E. Black.

* * *

*A. R. Woodburne, M.D.,* Grand Rapids, has been appointed General Chairman on Arrangements for the 1942 Convention of the Michigan State Medical Society which will be held in the Furniture City, September 22, 23, 24, 25, 1942.

* * *

*P. R. Urmston, M.D.,* Bay City, was elected chairman of the Health and Medical Committee of the Michigan Council of Defense. Doctor Urmston is also Chairman of the MSMS Medical Preparedness Committee.

* * *

*Wm. J. Burns,* Executive Secretary of the Michigan State Medical Society, was appointed by the Governor to the Commodities Distribution Committee, Michigan Council of Defense. The first problem referred to this state advisory committee was the rationing of tires.

* * *

*Jerome W. Conn, M.D.,* Ann Arbor, has been appointed as the Michigan State Medical Society representative to the Michigan Nutrition Defense Committee. The committee studies and makes recommendations concerning possibility of substitute foods and what foods are absolutely essential, and sets up local committees on nutrition to meet nutrition problems in defense.


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# IN MEMORIAM

**Artemas W. Chase** of Adrian was born September 7, 1875, in Raisin Township, and was graduated from the Detroit College of Medicine and Surgery in 1900. After graduation he began the practice of medicine in Adrian and with the exception of service in France during the World War, always practiced in Adrian. He established an enviable reputation as a physician in his earlier years and gradually became an authority on chest diseases and a specialist in roentgenology. In 1917 Doctor Chase enlisted in the Medical Corps of the U. S. Army and served as a regimental surgeon with the Coast Artillery in France for almost three years. At the end of the war he was honorably discharged with the commission of Major. He returned to resume his practice in Adrian. Dr. Chase was a member of the Detroit Roentgen Ray and Radium Society and later served as vice president of the Michigan Roentgen Ray and Radium Society. He served as mayor of the city of Adrian for three terms. He died November 7, 1941.

* * *

**Louis Klein** of Nutley, New Jersey, was born in 1885 in Brooklyn, N. Y., and was graduated from the Medical College of Long Island University in 1906. Dr. Klein had been clinical research director and editor of the *LaRoche Review* for the pharmaceutical plant of Hoffman-LaRoche, Inc., of Nutley, New Jersey. Before joining Hoffman-LaRoche, he was associated with Parke, Davis Company of Detroit and New York for fifteen years. Dr. Klein died October 25, 1941.

* * *

**John A Rickert** of Allegan was born in St. Clair County in 1895 and was graduated from the Detroit College of Medicine in 1921. He enlisted in the Medical Corps during the World War, receiving his honorable discharge in 1919. After receiving his medical degree, he began practice in Detroit. In the summer of 1922, he accepted a call to Allegan and opened the Emergency Hospital in that city. During his practice, he broadened his knowledge in surgery, taking postgraduate courses in the Crile Clinic of Cleveland. Doctor Rickert died after a long illness, on October 9, 1941.

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# READING NOTICES

## THE BORDEN COMPANY ACQUIRES MULLER LABORATORIES

The Borden Company has acquired The Muller Laboratories of Baltimore, Md., producers of Mull-Soy, a milk substitute in fluid form for use in diets of persons allergic to the proteins of cow's milk.

The laboratories will be operated under the direction of the Prescription Products Department of The Borden Company and will continue under the management of Dr. Julius F. Muller.

Mull-Soy, which is sold in drug stores on the recommendation of physicians, is in liquid form in tins of 15½ fluid ounces. It is prepared from soybean flour, soybean oil, dextrose, sucrose, calcium and sodium salts. It has been in production since 1936.

Dr. Muller obtained his B.S. degree at Rutgers University in 1922, his M.S. at the same institution in 1928, and his Ph.D., also at Rutgers, in 1930, following a Walker-Gordon Fellowship.

## THE "SULFA" DRUGS

In 1937 sulfanilamide became available generally and proved to be extremely useful in the treatment of infections due to B. hemolytic streptococci and meningococci. In addition, the drug soon was being employed in urinary tract infections, trachoma, chancroid, lymphogranuloma venereum, and certain cases of gas gangrene, and it demonstrated some benefit in gonorrhea, undulant fever, and actinomycosis. Approximately two years later sulfapyridine was being widely used in the treatment of pneumococcal infections and was found to be more effective than sulfanilamide against gonococci. After only another year sulfathiazole began to replace sulfapyridine because it was as effective against pneumococci and gonnococci, more effective against staphylococci, and occasioned fewer reactions. In urinary tract infections sulfathiazole was superior to sulfanilamide in most cases. Now sulfadiazine is being introduced and it has the advantage of a lower index of toxicity, which makes possible the maintenance of high blood levels.

This group of drugs has become exceedingly widely employed. Soon there will be only a small proportion of the general population which has not received one of them as treatment of some variety of infection (South. M.J., 34:1214, 1941). It behooves the physician to choose carefully the most specific and least toxic one for his case. A wide variety of dosage forms have been made available by Eli Lilly and Company.

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## SQUIBB INTRODUCES CAPSULES FERROUS SULFATE WITH $B_1$

To supplement their line of products for use in the treatment of anemia, E. R. Squibb & Sons, New York, have introduced Capsules Ferrous Sulfate with $B_1$. Each capsule contains 3 grains ferrous sulfate exsiccated (approximately 60 mg. iron) together with 1 mg. pure crystalline thiamine hydrochloride (333 U.S.P. XI units vitamin $B_1$).

Capsules Ferrous Sulfate with $B_1$ Squibb are designed for oral administration in the prophylaxis and treatment of secondary anemia, especially where the addition of vitamin $B_1$ is considered desirable, as during pregnancy and lactation, infancy and childhood, and in patients with anorexia associated with thiamine lack. They may also be useful as a supplement to liver therapy in the treatment of pernicious anemia when an iron deficiency also exists.

The suggested daily dosage for adults is 3 capsules, possibly increased to 4 or 5 during pregnancy, and for children, 1 or 2 capsules. They are preferably taken in divided doses 15 to 30 minutes before meals.

## INSTITUTE FOR BETTER POSTURE

S. H. Camp and Company recently announced the establishment of The Samuel Higby Camp Institute for Better Posture. The Institute has been established to meet the overwhelming number of requests for information concerning posture and its relation to health. The Institute will augment the activities of National Posture Week through the creation and dissemination of additional material throughout the year.

S. H. Camp & Company has pledged that the Institute will coöperate in its work with members of the medical profession and other ethical groups; further it will endeavor to impress upon the public not only the importance of good posture as it relates to good health, but will emphasize the desirability of periodic health examinations and professional medical counsel and guidance for special exercises and diets.

## AIDS NURSE-TRAINING PROGRAM

Miss Eleanor King, former instructor in nursing at Yale University and the University of California, has been named assistant coördinator of the three-year undergraduate defense program administered by Wayne University for training additional students in local cooperating schools of nursing. She will work in cooperation with Miss Louise Alfsen, the coördinator.

Specializing in the clinical nursing fields now being emphasized because of the war emergency, Miss King will give special attention to work in pediatrics, communicable diseases, and surgical and medical procedures.

The program was provided by a $48,690 grant to Wayne from the Surgeon-General of the United States in October, and is being carried out under Wayne supervision in nine schools of nursing and affiliate schools.—*Wayne University Newsletter,* December 17, 1941.

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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

GOULD'S MEDICAL DICTIONARY. Words and Phrases Generally Used in Medicine and the Allied Sciences, with Their Pronunciation and Derivation. Edited by C. V. Brownlow. Fifth Revised Edition. Philadelphia: The Blakiston Company, 1941. Price: Plain, $7.00; Thumb-Index, $7.50.

The fifth edition of a dictionary originally published in 1890 contains several hundred new words and many corrected older definitions which the advances of medicine and chemistry have made necessary. A departure from the usual procedure in the use of a separate table of prefixes and suffixes is commendable in that it simplifies the identification of complex words. It is a well printed, well organized dictionary and highly recommended to any physician.

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THE ESSENTIALS OF OCCUPATIONAL DISEASES. By Jewett V. Reed, B.S., M.D., F.A.C.S., and A. K. Harcourt, B.S., M.D., Indianapolis, Indiana. Springfield, Ill.: Charles C. Thomas, 1941. Price: $4.50.

The authors have been pioneers in this specialty in Indiana and their experiences are added to a general treatment of this broad subject. The material is well arranged and readable. The book is recommended to the physician or surgeon interested in industrial health.

---

WARD TEACHING. Methods of Clinical Instruction. By Anna M. Taylor, M.A., R.N., Supervisor of Clinical Instruction and Staff-Nurse Instruction, Massachusetts General Hospital. Philadelphia: J. B. Lippincott Company, 1941. Price: $3.75.

An excellent well written instruction book for the nurse or the physician who does ward teaching of nurses. It is very complete and practical. The conscientious use of this material should produce better nurses.

---

CANCER OF THE FACE AND MOUTH. Diagnosis, Treatment, Surgical Repair. By Vilray P. Blair, M.D., Sherwood Moore, M.D., and Louis T. Byars, M.D., St. Louis. Illustrated. St. Louis: The C. V. Mosby Company, 1941. Price: $10.00.

From observations made during the past twenty years by these authors in approximately fifteen hundred cases of epithelial malignancy arising in or about the face and mouth, combined surgical and radiological measures are advocated. The volume is beautifully illustrated both with photographs in series and schematic drawings of operative procedures. The photographs are exceptional and striking in effect. The typography is excellent and well organized. It is recommended highly to any surgeon or general practitioner interested in this study.

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TELEPATHY. In Search of a Lost Faculty. Eileen J. Garrett. With Introduction by Eugene Rollin Corson, B.S., M.D. New York: Creative Age Press, Inc., 1941. Price: $2.50.

The author, a well-known medium, discusses her experiences and reactions and seeks objectively to prove the reactions by subjective evidence. This rather unusual discussion of an accepted phenomenon provides interesting reading and is recommended to those of mature but not decadent mind.

THE ART AND SCIENCE OF NUTRITION. A Textbook on the Theory and Application of Nutrition. By Estelle E. Hawley, Ph.D., and Grace Carden, B.S., The University of Rochester School of Medicine and Dentistry, Rochester, N. Y. With 140 illustrations including 12 in color. St. Louis: The C. V. Mosby Company, 1941. Price: $3.50.

This book is prepared principally for the nurse who today must be trained to assume the detailed planning of the diet and to know why and what adaptions are necessary in various diseases and conditions. The authors believe the busy doctor seldom has time to do more than indicate the dietary treatment. This is a well organized, profusely illustrated volume, printed on green tinted paper. Many recipes and tables are included.

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SHOCK TREATMENT IN PSYCHIATRY: A Manual. By Lucie Jessner, M.D., Ph.D., Resident Psychiatrist, Baldpate Georgetown, Mass.; Graduate Assistant in Psychiatry, Massachusetts General Hospital; Assistant in Psychiatry, Beth Israel Hospital, Boston; and V. Gerard Ryan, M.D., Associate Psychiatrist, Elmcrest Manor, Portland, Conn.; Assistant in Psychiatry, Harvard Medical School. Introduction by Harry C. Solomon, M.D., Clinical Professor of Psychiatry, Harvard Medical School; Chief of Therapeutic Research, Boston Psychiatric Hospital. New York: Grune & Stratton, Inc., 1941. Price: $3.50.

The production of psychic alterations by insulin, metrazol or electric current is presented in this brief practical review. It is of interest to the general practitioner who desires information on which to base advice given to families of patients to whom this treatment has been suggested. It is quite readable and sound.

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SYNOPSIS OF THE PREPARATION AND AFTERCARE OF SURGICAL PATIENTS. By Hugh C. Ilgenfritz, A.B., M.D., Instructor in Surgery, Louisiana State University School of Medicine; Visiting Surgeon, Charity Hospital of Louisiana at New Orleans, and Rawley M. Penick, Jr., Ph.B., M.D., F.A.C.S. Professor of Clinical Surgery, Louisiana State University School of Medicine; Visiting Surgeon, Charity Hospital at Louisiana at New Orleans. With Foreword by Urban Maes, M.D., D.Sc., F.A.C.S. Professor of Surgery and Director of the Department, Louisiana State University School of Medicine; Senior Visiting Surgeon, Charity Hospital of Louisiana at New Orleans; Consulting Surgeon, Touro Infirmary. St. Louis: The C. V. Mosby Company, 1941. Price: $5.00.

The purpose of this volume is to serve as a practical guide for both surgical residents as well as surgical practitioners in the care of surgical patients throughout their hospital stay. It is very much condensed and so arranged that it is rather simple to use as a reference.

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## NAMED CO-ORDINATOR OF NURSING PROGRAM

Miss Louise Alfsen, former educational director of the Butterworth Hospital School of Nursing in Grand Rapids, has been named coördinator of the three-year undergraduate defense program administered by Wayne University for training additional students in local cooperating schools of nursing. She is a former president of the Western Michigan League of Nursing Education.

The program in which she will work was provided by a $48,690 grant to Wayne from the Surgeon-General of the United States last month, to aid Detroit's nurse-training facilities. The money was obtained through the efforts of the President of the Detroit Council of Community Nursing, Dr. Edna Noble White, in cooperation with Wayne's department of nursing and nine local hospitals.

The sum will finance the project administered by Wayne and carried on in the following schools of nursing and affiliate schools: Evangelical Deaconess, Grace, Harper, Henry Ford, Providence, St. Mary's, Children's, Herman Kiefer, and Woman's.—*Wayne University Newsletter,* November 19, 1941.


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### L. H. Sanford Joins MMS

Mr. L. H. Sanford, former Second Deputy Commissioner of Insurance of the State of Michigan, who has had wide experience in insurance affairs in connection with the Mid-America Corporation and also C. M. Verbiest & Associates, has joined the administrative organization of Michigan Medical Service according to an announcement from the Detroit offices.

### Schedule of Benefits

To the well-informed observer of medical service plans, the Schedule of Benefits is a positive indication of the type of program and the motivating philosophy of its administrators. Such an analysis is based on the extent of services listed and the amount of benefits allowed.

On this score, Michigan Medical Service compares to its advantage with other medical service plans. Visitors from numerous medical societies and medical service plans during the past two years have, almost without exception, been amazed at the scope of the Michigan Medical Service Schedule of Benefits. They have also been impressed with the fact that the benefits allowed compare favorably with the fees usually charged persons in the income groups served by Michigan Medical Service.

That the Schedule of Benefits has been acceptable to the majority of doctors is probably due to the fact that instead of arbitrarily setting an amount which ought to be accepted for the lower income groups, the benefits are, as nearly as can be determined, the actual prevailing charges for persons in these income groups. These charges have been carefully determined from the following sources:

1. A composite schedule of fees in Michigan prepared by the Committee on the Distribution of Medical Care of the Michigan State Medical Society.
2. A composite schedule based on fee schedules established by eighteen Michigan county medical societies.
3. A composite schedule of three hundred and eighty-four medical societies' fee schedules, prepared by the Bureau of Medical Economics of the American Medical Association.
4. A later composite schedule of five hundred and fifty-nine county medical societies' fee schedules, prepared by the Bureau of Medical Economics of the American Medical Association.
5. Fee schedules for medical service plans, such as those of the California Physicians' Service; Mutual Health Service, Washington, D. C.; Multnomah Medical Service Bureau, Portland, Oregon; Superior Health Association, Superior, Wisconsin; and Hawaii Medical Service Association, Honolulu.
6. Fee schedules for groups such as the Ontario Medical Association, Farm Security Administration, U. S. Veterans' Bureau, Workmen's Compensation schedules, and others.
7. Recommendations from special committees of several county medical societies—Wayne, Calhoun, and others.
8. Review of the level of benefits by the House of Delegates of the Michigan State Medical Society (September, 1939).

Special committees representing the various fields of medical practice have been invited to review the sections of the Schedule of Benefits pertaining to their fields, and to consider items to be added to the schedule. Some of these committees represent the Michigan Branch of the American Urological Society, the Detroit Ophthalmological Society, the Michigan Association of Roentgenologists, the Detroit Roentgen and Ray Society, the Michigan Association of Obstetricians and Gynecologists, the Michigan Dermatological Society, the Michigan Society of Clinical Pathologists, and the Michigan Allergy Society.

### Unusual Services

It is practically impossible to include in one fee schedule all the services whch may be rendered by physicians. The list of benefits does include most of the usual services but from time to time reports are received for services for which there is no precedent. These are handled in the following manner: The Medical Advisory Board obtains from doctors in that particular field of medical practice information as to the usual charge for this service to persons in the income group served by Michigan Medical Service. This customary charge is used by the Medical Advisory Board in determining payments for sub-

*(Continued on Page 94)*

# *Another defense problem solved—*

## the American soldier's identification tag now carries his blood type.

"TYPE THE BLOOD OF EVERY SOLDIER" was the recent order issued by American Army officers.

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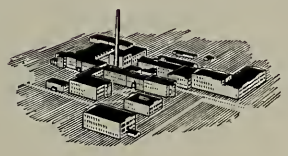
Among other qualities found in the blood grouping sera are greater accuracy and uniformity of results. Stability is assured; the product lasts indefinitely. The Lederle serum has received Army surgeons' approval. "Blood Grouping Sera (Powdered) *Lederle*" are in extensive use in the Army camps.



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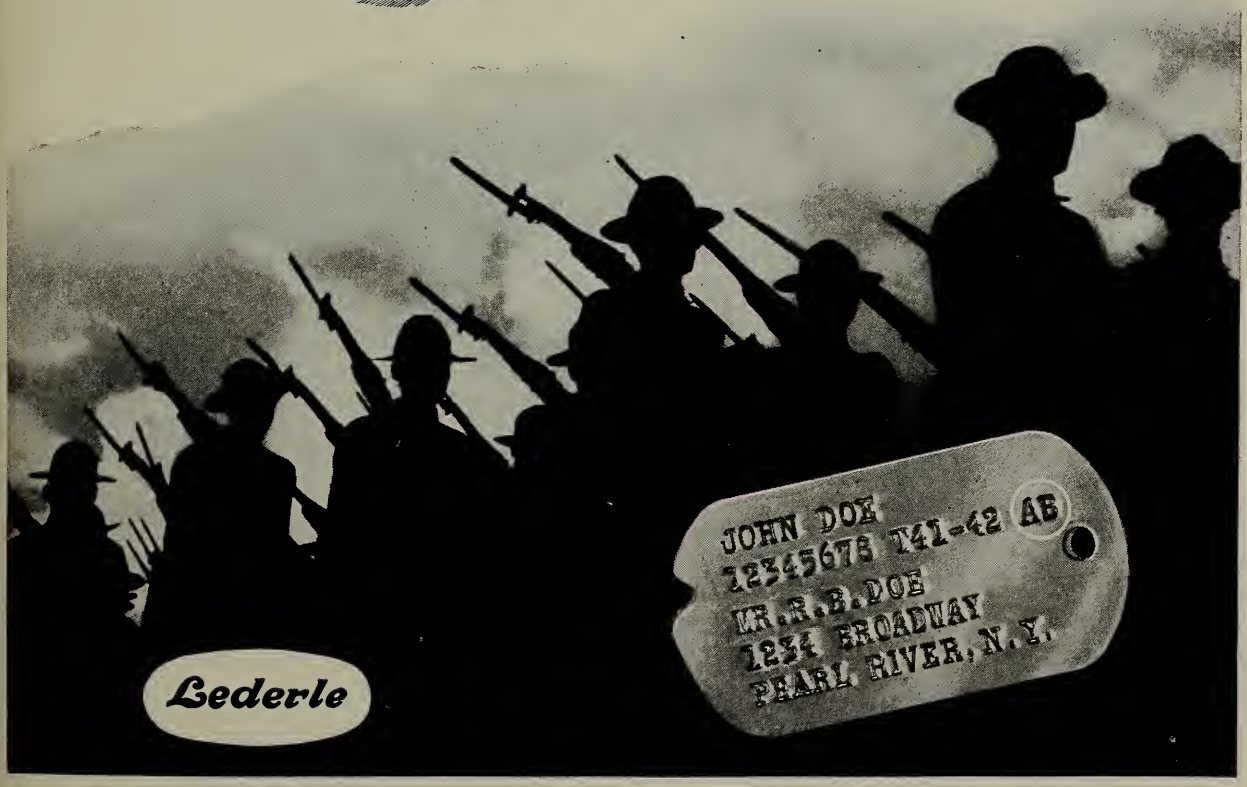

*(Continued from Page 92)*

sequent services. From experience in paying numerous medical bills and with the advice of the various specialty committees, the Schedule of Benefits will be extended and revised according to the prevailing charges in Michigan.

When the Schedule of Benefits is compared by an individual physician with the charge he usually makes, the following should be kept in mind:

1. The amounts in the schedule are the charges made by the majority of physicians in Michigan and represent the consensus as to what is the prevailing charge for persons in the lower income group.

2. The Schedule is used only as a guide by the Medical Advisory Board. Each case is determined on its own merits and all the circumstances surrounding each particular case are considered in the amount of payment authorized.

3. For services to persons in the under-income group enrolled in Michigan Medical Service, there will be no loss of income because of charity or patients who fail to pay their bills. (Unremunerated services in the general population amount to at least 25% of a doctor's total annual charge.)

4. Payments for those subscribers whose incomes exceed the specified limits apply only as a credit on the doctor's bill. The doctor may bill such a subscriber directly for any difference between the amount authorized by Michigan Medical Service and his usual charge to persons in the higher income group.

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, January 14, 1942—Bay City—Speaker: Harry M. Nelson, M.D., Detroit—Subject: "Ovarian Tumors"

*Calhoun*—Tuesday, January 6, 1942—Battle Creek—Speakers: D. E. Jayne, Direcor of Local Civilian Defense, and J. E. Rosenfeld, M.D., Chief of Emergency Medical Services

*Genesee*—Tuesday, December 16, 1941—Flint—Speaker: Haven Emerson, M.D., New York City

Tuesday, January 13, 1942—Flint—State Society Night for 6th District.

*Ingham*—Tuesday, January 20, 1942—Lansing—President's Night—Speaker: Judge Homer A. Ramey, Municipal Court, Toledo, Ohio

*Ionia-Montcalm*—Tuesday, January 13, 1942—Ionia—Speaker: Vernor M. Moore, M.D., Grand Rapids—Subject: "Radiotherapy of Some Gynecological Conditions"

*Jackson*—Thursday, December 11, 1941—Jackson—Annual Banquet

*Kent*—Tuesday, January 13, 1942—Grand Rapids—Speakers: Leon DeVel, M.D., Dewey R. Heetderks, M.D., Jay Venema, M.D., Joseph McKenna, M.D., all of Grand Rapids, participating in a round table discussion on "The Common Cold and Its Complications"

*Oakland*—Wednesday, January 7, 1942—Rotunda Inn—Speaker: Clair E. Folsome, M.D., New York City—Subject: "Maternal Health Program of Oakland County"

*St. Clair*—Tuesday, December 23, 1941—St. Clair—Annual Meeting Tuesday, January 13, 1942—Port Huron—Speaker: B. J. Ashley, M.D., Detroit—Subject: "Treatment of Shock in War and Civilian Life."

*St. Joseph*—Thursday, January 8, 1942—Constantine—Speaker: Matthew Peelen, M.D., Kalamazoo—Subject: "Varicose Veins and Their Treatment"

*Shiawassee*—Thursday, January 15, 1942—Owosso—Speaker: Warren Wheeler, M.D., Detroit—Subject: "Care of the Premature"

*West Side (Wayne)*—Wednesday, January 21, 1942—Detroit—Speakers: Don Jaffar, M.D., David Sugar M.D., Eugene Steinberger, M.D., and Robert J. Hall, M.D., all of Detroit

*Wayne*—Monday, January 12, 1942—Detroit—Speaker: George B. Eusterman, M.D., Rochester, Minnesota—Subject: "Problem of Gastric Carcinoma: Personal Observations on Manifestations of the Disease in its Earliest Stages."

Monday, January 19, 1942—Detroit—General Practice Meeting—Symposium on "The Early Diagnosis of Cancer" conducted by S. E. Gould, M.D., Detroit. Speakers: O. A. Brines, M.D., H. P. Doub, M.D., Claire L. Straith, M.D., W. A. Hudson, M.D., H. J. Kullman, M.D., T N. Horan, M.D., H. I. Kallet, M.D., W. L. Sherman, M.D., H. C. Saltzstein, M.D., Harry M. Nelson, M.D., George Kamperman, M.D., and C. J. Smyth, M.D.

Monday, January 26, 1942—Detroit—Surgical Section Meeting—Symposium on Fractures.

Monday, February 2, 1942—Detroit—Annual Beaumont Lecture—Speaker: Charles C. Higgings, M.D., Cleveland, Ohio—Subject: "Renal Lithiasis, Its Nature, Causation, Prevention and Treatment."

Monday, February 9, 1942—Detroit—Second Beaumont Lecture—Medical Section meeting.

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## COUNCIL AND COMMITTEE MEETINGS

1. Medical Preparedness Committee—Wednesday, January 14, 1942—Wardell Hotel, Detroit—6:30 p.m.
2. Syphilis Control Committee—Thursday, January 15, 1942—Hotel Olds, Lansing—6:30 p.m.
3. County Societies Committee of The Council—Friday, January 16, 1942—Statler Hotel, Detroit—6:30 p.m.
4. Finance Committee of The Council—Friday, January 16, 1942—Statler Hotel, Detroit—6:30 p.m.
5. Publication Committee of The Council—Friday, January 16, 1942—Statler Hotel, Detroit—6:30 p.m.
6. Annual Meeting of The Council—Saturday and Sunday, January 17 and 18, 1942—Statler Hotel, Detroit.
7. Iodized Salt Committee—Saturday, January 17, 1942—Detroit Club, Detroit—10:00 a.m.
8. Public Relations Committee—Saturday, January 24, 1942—Hotel Olds, Lansing—6:30 p.m.

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## LAW BARS ALIEN DOCTORS

Doctors who are citizens of countries which deny licenses to U. S. physicians are denied the privilege of entering private practice in California, under a new law in that State. Governor Culbert L. Olson's previous veto of the measure was overridden by both houses of the legislature. Canadian doctors and aliens already serving internships here are not affected by the new legislation. —*Illinois Medical Journal,* November, 1941.

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(1) 1811. The Art of Preserving All Kinds of Animal and Vegetable Substances for Several Years, M. Appert, Black, Perry and Kingsbury, London.
1938. Food Research 3, 13.
1938. Ibid. 3, 91
1939. Canned Food Reference Manual, American Can Company, New York
1941. Ind. Eng. Chem. 33, 292

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**The Seal of Acceptance denotes that the nutritional statements in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.**

# HALF A CENTURY AGO

## THE WORK AND PAY OF HEALTH OFFICERS

HENRY B. BAKER, M.D.
Lansing, Michigan

Mr. President and members of the State Medical Society:

I wish first of all, to thank the section of Practice of Medicine for this opportunity to place before you what I have to offer. I have assumed that I would be expected to deal with some subject likely to be of interest to the general practitioners, and which my own occupation might enable me to have more than ordinary opportunities for studying. Inasmuch as the State law now requires that, wherever it is practicable, every health officer shall be a physician, and there are now fifteen hundred health officers chosen in Michigan every year, there is a possibility of my subject being of interest to a considerable proportion of the general practitioners in the State, because many of them may, at some time, be health officers, and because if my views were to be carried out, nearly fifteen hundred practitioners would devote the greater part of their energies to official duties, and not to the practice of medicine.

Although the title of this address is "The Work and Pay of Health Officers," I desire, at this time, to deal especially with the subject of pay. My belief is that the compensation of the health officers generally, throughout the State, with only a few exceptions, is ridiculously small and inadequate; and that the best interests of all concerned are injured thereby, and will be best conserved by such a general change as shall recognize the fact, as old as the scriptures, that the "laborer is worthy of his hire" or reward. I suppose it is not necessary for me to laboriously prove that this proposed change would be a good thing for the medical profession in this State; if it is ever questioned I will try to prove it, on some other occasion; but it may not, at first glance, be so apparent that it would be a good thing for the sanitary interests of the whole people of the State. Therefore the reasons for a belief that such is the fact may well be stated.

At first thought, it might seem that gratuitous services by physicians acting as health officers would always be for the best interests of the people generally; and, in the beginning of any movement for sanitary reform, it undoubtedly is for the best interests of the people. The people of Michigan owe a great debt of gratitude to the philanthropic physicians throughout this State who have generously performed services for the public which the people generally were not sufficiently informed to ask for, to pay for, or to appreciate, but which have tended to place Michigan in the front rank of progress in sanitary reform. The officers and members of this State Medical Society, especially, have contributed very greatly to place Michigan in the lead in sanitary progress.

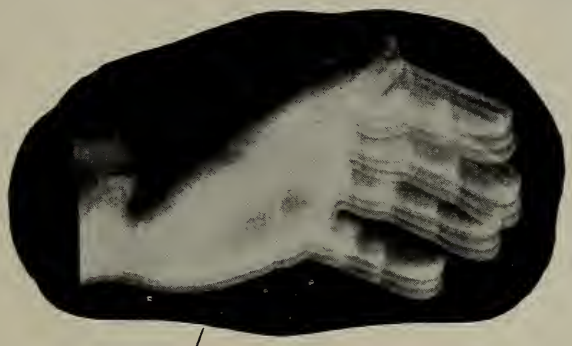
But, in the evolution of organized society, there come times when methods which have served exceedingly useful purposes need to undergo slight modification in order better to fit them for the changed conditions. In my opinion, the time has arrived when it will best serve the people of Michigan to gradually educate them into a knowledge of the real value of public-health work, and into an appreciation of the fact that it is best for corporations and governments, townships, cities, and villages, as it has long been known to be best for individuals, not to try to get something for nothing. In the long run, an effort to get something for nothing is unsuccessful. Such efforts generally lead the individual to the penitentiary, and the government to a penitential mood.

The people have gradually so increased in appreciation of the importance of public-health work that their representatives, the law makers, have provided so much work to be done by health officers, and have affixed to the non-performance of the duties such penalties, that no ordinary practitioner can, without adequate compensation,

*(Continued on Page 98)*

Presented at the Twenty-seventh Annual Meeting of the Michigan State Medical Society in Flint, May 5 and 6, 1892.

# IN POST-ENCEPHALITIC PARKINSONISM



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**NORMAL DOSAGE:** 20 to 40 mg. daily. One-half of the dose at breakfast and the other half at noon. In exceptional cases, larger doses may be necessary.

Benzedrine Sulfate should be used with caution in hypertensive cases and should not be used in coronary disease and other cardiac conditions in which vasoconstrictors are contraindicated. Atropine, stramonium and scopolamine enhance its pressor effect.

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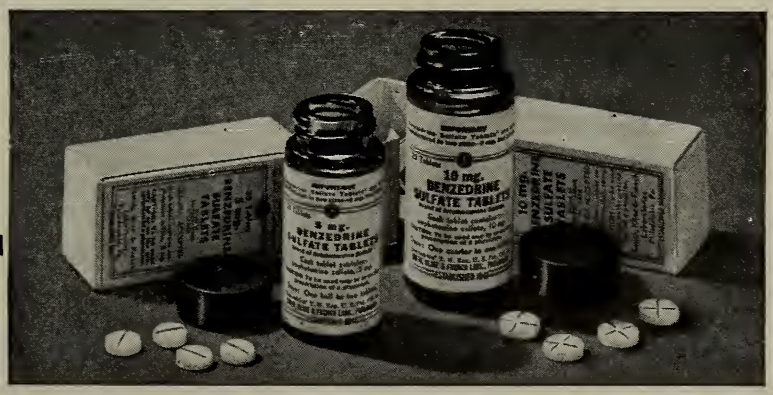


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*(Continued from Page 96)*

afford to take the chances of being held accountable under the law for the neglect of official duty. But the main reason why it does not now seem to be best that the duties of the health officer should generally be performed gratuitously, is that no ordinary practitioner can afford to, and it is getting so that generally no competent physician will, for any small sum, neglect his practice and do all that the law and public sentiment now expect to be done by the health officer.

The amount of service that is now required of the health officer is frequently not appreciated by the physician until he has accepted the office, when he finds that, owing to comparatively recent laws, more is required of him that he anticipated.

What is needed is some method whereby not only the physicians, but the people generally, who have to pay the health officers, shall become informed of the nature, extent, and importance of the work of the health officer. It seems to me that, as might have been expected from the occupation, those who have managed the school interests in Michigan have shown most wisdom in their methods of impressing the people with the importance of their work, and also in obtaining from the people the necessary money to carry on the school work. We need to adopt their methods. Whoever will examine his receipt for taxes will find that the main items are for school purposes. Yet the people vote to assess themselves for those purposes, after the subject has been carefully put before them. And those who have the interests of the schools in charge have opportunity, and they carefully prepare and put before the people every year, at the school meeting in September, the amounts of money which it is estimated should be used for school purposes, and facts and reasons why those amounts are needed. There should be a law similar to the school law, relative to public-health affairs. Surely the interests of the health and life of the whole people, including the children, are of more consequence than the school education of the children alone.

All that is required to make this apparent, is such an opportunity as the school laws provide for placing the facts before the people at the time the vote is taken to adopt the estimates of those who have this branch of the public service in charge.

**How to Get Money for Public-Health Work**

Have a public meeting of citizens of the city, village, or township, at which meeting the amount of money to be assessed and collected for public-health purposes shall be voted upon. Have the local board of health present to that meeting estimates of the amounts proper to be collected. The health officer should be prepared, and should present to this public meeting, the facts and reasons why expenditures for public-health work are in the public interests. It ought not to be difficult to convince the people generally that the lives and health of the people themselves are of more consequence than any other subject for which they collect taxes.

Let us suppose that opportunity is given the health officer to put before the people of a township, village, or city the facts and reasons for public-health work; what can be presented?

This can be presented:

1. The health officer can assure the people that, if they are situated in the average locality in Michigan, the death rate will average about 17 per thousand inhabitants per year; that, of those deaths, about 11.8 per cent will be from consumption, 6.5 from diphtheria, 2.7 from scarlet fever, and 3.2 from typhoid fever. He can assure the people that these are all communicable diseases, that they are all preventable, through measures which are now well known to sanitarians; and, what is more important, he can assure them that reliable statistics, collected by the Michigan State Board of Health, from the experience of local officers in Michigan, have proved that (even after the disease has been introduced) about seventy-five or eighty per cent of the cases and deaths from diphtheria and from scarlet fever are prevented by measures which a good health officer, acting in accordance with our present laws, and supported by the people of his locality, can inaugurate and maintain. Knowing approximately the population of the township, village, or city, the health officer can readily compute the saving of life which such a saving as has been proved to occur under such measures, would be for the number of inhabitants. Let us suppose a small city, of four thousand inhabitants—then the deaths from all causes, at the rate of 17 per thousand per year, would be 68; the deaths from consumption (11.8 per cent) would be 8; the deaths from diphtheria (6.5 per cent) would be

*(Continued on Page 100)*

# Portrait of a Healthy Baby - 1890

Product of the days when healthy babies more or less "just happened."

Today, they don't "just happen." Their progress is charted by careful doctors. Doctors who are constantly increasing the percentage of healthy children by feeding them wisely . . . giving them the advantage of fifty years' advance in the science of infant nutrition. BAKER'S MODIFIED MILK is a modern food, offering in highly tolerable form seven important *extra* food values favored by modern nutrition. It's rich in essential protein (40% more than breast milk)—plus complementary gelatin, an adjusted fat, two added sugars, extra vitamins and iron.

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A specially prepared infant food of tuberculin-tested cows' milk, in which the fat has been replaced by vegetable and cod liver oils, modified by the addition of dextrin, maltose, dextrose and iron ammonium citrate. For general infant feeding, as a supplement to and in place of breast milk, at birth and throughout the bottle feeding period. A low cost milk, completely prepared. Write for literature.

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- *Liberal* protein content
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**West Coast Office: 1250 Sansome Street, San Francisco**

*(Continued from Page 98)*

about 4½ (4.4); the deaths from scarlet fever (2.7 per cent) would be nearly two (1.8); the deaths from typhoid fever (3.2 per cent) would be a little over two. If seventy-five per cent of these deaths were to be prevented, there would be a saving of the lives of about three persons from death by diphtheria, about one from scarlet fever, and one from typhoid fever. These five persons constitute a part of the productive energy of the city upon which its prosperity depends. They are worth to the city, for what has been expended to raise them, and for what they will earn in excess of costs of maintenance, at least as much each as a good slave would sell for before the war, which was about the same as the statisticians compute as the value of an ordinary laborer—say, for the adult person, one thousand dollars, and for each of the children one-half of that amount. The four who are saved from diphtheria and scarlet fever would be likely to be children, while the one saved from typhoid fever would be likely to be in the prime of life. The actual money value of the five persons, therefore, would be three thousand dollars. If a city of four thousand inhabitants should vote to use three thousand dollars per year in public health work, I have no doubt whatever but the five lives, above mentioned, could be saved, from those three diseases alone; and probably lives could be saved from other diseases. Then how much better to save those lives, and avoid the grief and sorrow which would result from their loss. Again, the money used would be only the amount which, without effort for restriction, would be lost to the city—the actual outlay would not be at all increased. It seems to me that any meeting of citizens, of ordinary intelligence, could be made to see that the lack of public-health work is a wasteful extravagance, and that it is better to use a certain sum of money to pay a health officer than to permit the death of loved ones that have actually cost as much as that sum, and who, if they die, are a dead loss, in more than one sense.

The facts are applicable to every locality in Michigan, making allowance for a greater or a less number of inhabitants.

This may seem to be an unusual topic for the annual address which we denominate an "Oration"; but I believe it is one in which the medical profession have great interest, and certainly should have great influence in its decision. I have given you some of the reasons why I favor legal provision for the presentation locally, to all voters throughout the State, of the benefits to be expected from sanitary work, after the manner of the meetings to determine the amounts of money to be raised for school purposes.

I know that it is not customary to discuss "Orations"; but this is a practical subject, of considerable general interest to the entire profession. If agreeable to the society, I shall be glad to have the subject discussed.

---

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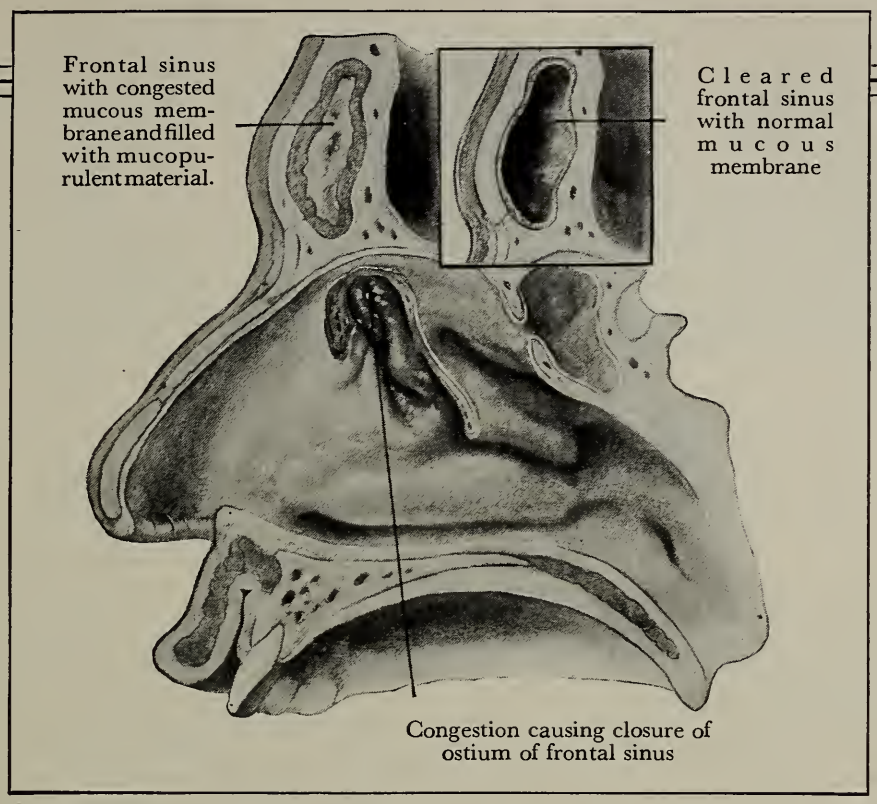
*(Continued on Page 102)*

# PATHOLOGY OF THE UPPER RESPIRATORY TRACT




## CATARRHAL INFLAMMATION OF THE FRONTAL SINUS

The above illustration demonstrates the route of infection to the frontal sinuses—demonstrates, too, the need for adequate drainage of the area. To shrink congested nasal mucous membranes quickly—to establish adequate drainage with more prolonged effect than ephedrine, may we recommend

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### DOSAGE FORMS:

**SOLUTION**—¼% in saline solution (½ oz. and 1 oz. bottles)
1% in saline solution (½ oz. and 1 oz. bottles)
¼% in Ringer's Solution with Aromatics (½ oz. and 1 oz. bottles)

**EMULSION**—¼% low surface tension (½ oz. and 1 oz. bottles)

**JELLY** —½% in collapsible tube with applicator

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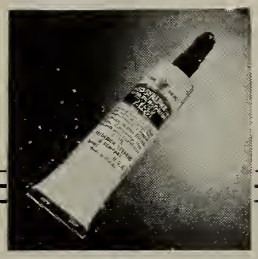
SOLUTION

EMULSION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"Apples are good sources of pectin and hemicellulose, colloidal substances, which because of their ability to take up and hold water, convert liquid stools to formed stools and stimulate or maintain normal intestinal activity. Strangely enough this interesting ability means that both constipation and diarrhea can be corrected by apples."

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## VESICULAR AND VESICULOPUSTULAR ERUPTIONS OF THE HANDS AND FEET

Some of the most troublesome, though harmless, diseases of the skin involve the hands and/or feet in the form of small blisters or pustules on the thick skin of the palms, soles, fingers and toes.

The popular conception that such eruptions are a form of fungus infection (ringworm or athletes' foot) cannot be borne out by microscopic and cultural studies. Actual demonstration of fungi can be made in only five to 15 per cent of children and 30 per cent of adults. During the summer, the heat of which encourages the growth of fungi, the percentage rises to 50. Vesicular eruptions resulting from allergic reaction to external irritants as proven by a positive patch test are seen more frequently in industries than in ordinary life.

Functional studies indicate that most vesicular and vesiculopustular eruptions of the hands and feet occur as a result of perversion of the sense of fatigue and fall in the large group of functional diseases. Treatment directed toward the underlying nervous exhaustion must be added to local measures to be efficacious.—S. W. Becker, M.D., Chicago, Illinois (See page 111).

## SYMPTOMS AND THERAPY OF AUTONOMIC DYSTONIA

In the treatment of the many manifestations of dystonia of the autonomic nervous system, the author finds that in addition to psychotherapy. hydrotherapy and dietotherapy, specific mild sedation of the component branches of the nervous system is essential in the ambulatory management of these patients. A résumé of 317 cases reveals ninety per cent showing from mild to marked improvement. Bellergal was used as the sedative and cases followed for several years failed to show any deleterious effects. In three patients, because of sensitization to the bellafoline component, the drug was stopped. Because of frequency of these cases, the author urges similar investigations.—George W. Slagle, M.D., Battle Creek, Michigan. (See page 119.)

## MENTAL DISORDERS AS CAUSE OF REJECTION IN MICHIGAN REGISTRANTS

Michigan Selective Service Headquarters assembled information furnished by Michigan Local Boards for the first 340 men rejected at Induction Stations for mental and nervous disorders. The purpose of the study was to evaluate procedures for handling mental and nervous cases in Selective Service routine. These specific questions were considered: what occupation these men followed prior to induction; what economic and social standing they had in their communities; what happened to them after their rejection; whether or not it was likely that rejection for mental disorders caused social stigma; whether or not the men were unduly concerned over the result of their psychiatric examination; whether or not rejection for this cause was a factor in preventing subsequent employment.—Harold A. Furlong, M.D., Myra E. Hilpert, A.B., and Clifford H. Greve, M.S.P.H., Lansing, Michigan. (See page 123.)

## DE OFFICIIS IN ANAESTHESIA

Duties in anæsthesia are recounted in considerable detail and it is pointed out that they are consecutive and interdependent. We ought to feel bound to study the subject in order to apply our wisdom to the service of humanity, and to teach and train those who are desirous of learning. The Medical School should have a Department of Anæsthesia, adequate not only for undergraduate instruction, but to afford opportunities for the graduate who wants to be a specialist; and too, to give the personnel cause to do investigative work in the laboratory and the clinic, collaborating with members of the school's other departments. Problems discussed belong to the services attached to the preparation of the patient for anæsthesia, the selection of the anæsthetic agents and the methods of their administration, bearing in mind some harmful effects. —Wesley Bourne, M.D., Montreal, Canada. (See Page 129.)

## OBSERVATIONS ON THE USE OF GLASSES

This presentation is offered with the hope that it will suggest to the general physician a simple way of describing certain physiologic optical principles to their patients. The normal eye is an image-forming optical instrument with a remarkable range of adaptability. Clear, comfortable vision depends primarily on a sharp image which must be formed exactly on the surface of the retina without undue effort of accommodation. In a refractive error—myopia, hypermetropia, astigmatism—the correct lens, when placed before the eye, changes the final direction of the rays of light so that on entering the eye they will be imaged on the retina. This is equivalent to placing an object at the exact position for which the eye is adapted. A refractive error is not a disease, nor can it be produced by working under unfavorable conditions. Every person must eventually become presbyopic. An explanation of accommodation and presbyopia is also included. —Alfred Cowan, M.D., Philadelphia, Pa. (See page 134.)

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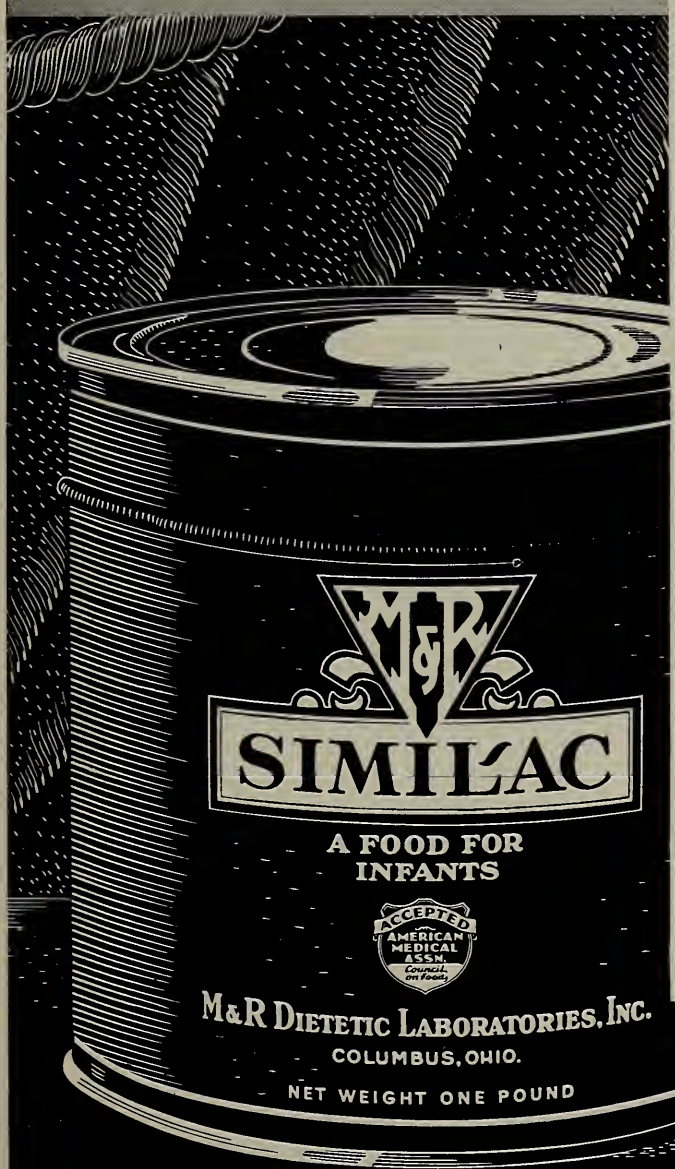


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# MEDICAL PREPAREDNESS

## RETURNS OF M.S.M.S. MEDICAL PREPAREDNESS QUESTIONNAIRES

**Up to January 14, 1942**

| | |
|---|---|
| *Allegan | 24 |
| Barry | 4 |
| *Bay | 79 |
| Berrien | 13 |
| Branch | 13 |
| *Calhoun | 121 |
| Chippewa-Mackinac | 14 |
| *Clinton | 13 |
| *Dickinson-Iron | 26 |
| *Eaton | 26 |
| Genesee | 143 |
| *Gogebic | 42 |
| *Grand Traverse | 46 |
| *Hillsdale | 27 |
| Houghton-Baraga-Keweenaw | 29 |
| *Huron | 13 |
| Ingham | 122 |
| Ionia-Montcalm | 12 |
| *Kalamazoo | 110 |
| *Kent | 294 |
| Lapeer | 6 |
| *Livingston | 18 |
| Luce | 1 |
| *Macomb | 44 |
| Mason | 2 |
| *Mecosta-Osceola | 18 |
| Med. Soc. of North Central Co. | 19 |
| *Monroe | 46 |
| *Muskegon | 80 |
| *Newaygo | 11 |
| *Northern Michigan | 36 |
| *Oceana | 11 |
| *Sanilac | 22 |
| Shiawassee | 1 |
| *St. Clair | 48 |
| *St. Joseph | 29 |
| *Tuscola | 24 |
| *Van Buren | 26 |
| Wexford-Missaukee | 11 |
| Wayne | 1 |
| TOTAL | 1,625 |

*100 per cent returns, or nearly 100 per cent. Of the forty counties from which returned questionnaires have been received, twenty-five have returned approximately 100 per cent.

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The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
Volume 41 February, 1942 Number 2

# Vesicular and Vesiculopustular Eruptions of the Hands and Feet*

## Diagnosis and Treatment

By S. William Becker, M.S., M.D.
Chicago, Illinois

S. William Becker, M.D.

*B.S., 1918, M.D., 1921, University of Michigan; M.S., 1928, University of Minnesota; Assistant Professor of Dermatology, University of Chicago, 1927-30, Associate Professor since 1930. Member A.M.A. and component societies; American Academy of Dermatology and Syphilology; American Dermatological Association; and other organizations; Diplomate of American Board of Dermatology and Syphilology. Author: "Commoner Diseases of the Skin," 1935; "Ten Million Americans Have It," 1937; "Modern Dermatology and Syphilology," 1940 (with Obermayer).*

▪ A vesicle may be defined as a fluid-containing lesion up to 5.0 mm. in diameter; the contained fluid is either serum, blood or lymph. Vesicles may rupture, with exudation and crusting, or may dry to form crusts. The crusts may be seen as such on the thin skin of the backs of the hands and feet and other parts of the body, but on the palms and soles the crusts are usually so deep that scaling or exfoliation of the overlying stratum corneum results, especially when the vesicles are abundant and closely studded.

A vesicopustule is a lesion which first appears in the form of a vesicle, but the contents of which soon become purulent as the result of ingress of leukocytes. This secondary change occasionally results from secondary infection, in which event the pustule is surrounded by an erythematous zone and the roof of the lesion is elevated and under tension. Microscopic examination shows an inflammatory infiltrate surrounding the pustule, and the lesion is distended with purulent material. Culture of the contents reveals organisms. More commonly, the contents of the vesicle become cloudy as the result of ingress of leukocytes, without, however, surrounding erythema and microscopic perivesicular infiltrate and without elevation of the roof of the lesion, since there is no increased internal tension. Cultures of such lesions give uniformly negative results. The latter type of vesicopustule is seen almost solely on the palms and soles, while the former may be seen on all parts of the body.

Vesicles usually result from processes confined to or appearing primarily in the epidermis, such as in eczema-dermatitis venenata, certain allergic and toxic "id" eruptions, herpes simplex and zoster, varicella and pompholyx (also known as dyshidrosis). Occasionally, however, dermal processes such as that in dermatitis herpetiformis, may result in vesicle formation. Other dermal processes, such as those in lichen planus and urticaria, may occasionally produce vesicles capping the papules and wheals. Fluid-containing lesions of erythema multiforme may constitute vesicles, until their enlargement results in the formation of bullæ.

The characteristic epidermal reaction which always precedes vesiculation is intercellular edema. The edema fluid collects between the epidermal cells, causes rupture of the intercellular bridges and produces microscopic vesiculation, a process which is known as spongiosis. It is present in pronounced degree in eczema-dermatitis venenata and exudative neurodermatitis, and to a lesser extent in pityriasis rosea and sebor-

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rheic dermatitis. Severe exudation and spongiosis uniformly result in macroscopic vesiculation only in the case of epidermal irritation as seen in eczema-dermatitis venenata. A large amount of serous exudate may be seen in exudative neurodermatitis, but vesiculation occurs only in the thick skin on the fingers, toes, palms and soles, where the condition cannot be distinguished from pompholyx (dyshidrosis).

### Terminology

Considerable study has been made of vesicular eruptions in the eczema-dermatitis venenata group, also known as contact dermatitis. This study has not led to a uniformly accepted terminology. The designation "contact dermatitis" ignores the element of hypersensitiveness, hence at the University of Chicago Clinics we use Bloch's arbitrary division, designating those cases associated with hypersensitiveness as "eczema," and the remainder as "dermatitis venenata." In other words, if less than 50 per cent of individuals would react to the offending substance, the condition is called "eczema," while if more than 50 per cent would react, it is called "dermatitis venenata." An alternative method would be to class all vesicular eruptions due to irritants as "eczema," but Miescher[12] showed that the clinical and microscopic appearance of lesions produced by vesicants such as croton oil and hydrochloric acid does not differ appreciably from those involving hypersensitiveness, such as in eczema due to mercury, nickel, or local anesthetics. Hence, until further study shall provide us with a more logical classification, we shall continue to separate the eruptions into the two groups, namely—eczema and dermatitis venenata.

Another method of classification is based on the designations "allergic" and "toxic." By allergic is meant an eruption in an individual who has been sensitized by previous contact with a substance which is not a primary irritant in the concentration used. By toxic is meant an eruption which occurs in a majority of persons on the first exposure. In the latter group would be placed eruptions due to primary vesicants, such as croton oil. Our eczema would therefore be classed as allergic, while our dermatitis venenata would usually be classed as toxic.

### Clinical Description

Vesicular and vesiculopustular eruptions of the hands and feet may appear on the dorsal or palmar/or plantar/ surfaces. These eruptions constitute a large percentage of dermatoses for which we are consulted by patients. Certain of them are comparatively easy to evaluate, while others present considerable difficulty. Some of them can be proven to be allergic by the positive patch test, employing dilute solutions, while others cannot. The clinical picture in the two varieties may be similar or even identical, which fact has led to considerable confusion. Patients with these eruptions are seldom presented at dermatologic meetings, so that comparison of nomenclature employed by various workers cannot be easily made.

The simplest type of cutaneous reaction consists of erythema, edema, vesiculation, exudation and crusting of the eczema-dermatitis venenata syndrome. The eruption appears on the dorsum of the fingers and hand or toes and feet in the form of closely studded vesicles, commonly extending from the nails to a line on the wrist or ankle (Fig. 1) which delineates the extent of the exposure. The palms are ordinarily involved only after the eruption has progressed to the sub-acute or chronic stage, at which time it may extend onto the palmar surface of the fingers and onto the palm (Fig. 2). The palms, since they are resistant to external irritants, are involved only rarely early in the course of the eruption; I have observed such involvement in one case of primrose eczema. The offending substance can usually be identified by the patch test. The condition is often occupational or industrial. In case the material has been applied in an irregular manner, as occurs in dentists, where a local anesthetic escapes from the syringe onto small areas on the dorsum of the hand, the eruption may be patchy and give rise to confusion with exudative neurodermatitis. The mechanism of production of eczema is thought by some to be an antigen-antibody reaction taking place in the epidermis, but antibodies have been demonstrated only rarely.

Eczema of the hands may occasionally be produced by infectious organisms, in which case the palms may be involved primarily. I have seen three patients with such eruptions from which hemolytic streptococci have been cultured. One

was a hospital attendant caring for a man with chronic secondary exfoliative dermatitis, who experienced chills and fever of the septic type, which were attributable to hemolytic streptococci

Fig. 1. Vesiculobullous eczema of the feet produced by shoe dye. The patient had also had dermatitis of the wrist caused by a black leather strap.

cultured from the cutaneous surface. The second patient was an intern with a similar eruption. The third patient developed a vesicular and vesiculobullous eruption of the hands, including the palms (Fig. 3). Hemolytic streptococci were isolated from the vesicle fluid. Diagnosis was made of streptococcal eczema in the three cases.

Fungous infection of the feet of the eczematoid variety is seen fairly frequently in the form of vesicular plaques on the soles, usually unilateral in distribution. Such an eruption of the hands is almost unknown. In the past fourteen years, I have seen only three vesicular eruptions of the hands in which fungous hyphæ could be demonstrated. Two of them had started as tinea circinata on the dorsal surface of the hand, and had extended onto the palmar surfaces. The third patient showed a solitary vesicle on the lateral surface of a finger. It is, of course, impossible to estimate the course the disease would have taken if the condition had not been treated. Vesicular fungous eruption of the hand as pictured in textbooks is evidently extremely rare. The common vesicular fungous infections of the feet are aggravated during the hot weather, at which time vesicles may also appear on the palms (Fig. 4). This palmar eruption, studied by Peck[15] and others, is produced by the fungous allergen which has been carried through the blood stream and has caused the sensitized epidermis of the palms to react in the form of an eczema-

Fig. 2. Chronic eczema of the hands which has spread to the palmar surface.

Fig. 3. Streptococcal eczema of the hands.

tous eruption known as a dermatomycid, or according to the causative organism as a trichophytid, etc. Fungi are not demonstrable in the roofs of such vesicles and the palmar eruption heals promptly if the dermatosis on the foot is controlled. The allergic nature of the palmar eruption has been verified by its subsequent production by intravenous injection of trichophytin. In severe reactions, the vesicular trichophytid may

be generalized. Patch tests with trichophytin produce an eczematous picture, thus demonstrating the hypersensitiveness of the epidermis.

Certain generalized or severe localized eruptions in the form of non-fungous dermatitis, particularly those located on the lower extremities, may also be associated with a diffuse vesicular eruption of the palms and soles. The primary eruption is usually exudative in type, and often constitutes exudative neurodermatitis. The dry form of neurodermatitis, usually called atopic eczema, does not produce palmar and plantar vesiculation, no matter how severe the eruption.

Fig. 4. Dermatomycid of the palm. The patient had had a flare-up of a vesicular fungous infection of the foot during hot weather. Fungi are never found in the palmar lesions.

Other vesicular, vesiculopustular or vesiculobullous eruptions of known cause are less frequently seen, but must be considered from the standpoint of differential diagnosis. Two such eruptions are vesicular iododerma and vesiculobullous second degree burn.

By far the greater number of vesicular eruptions of the hands and feet as seen in private practice in the North cannot be classified in any of the groups already mentioned. They may for the most part be included in the group referred to by Wise and Wolf[18] as "idiopathic," which group, I believe, should include a wide range of dermatoses that have at various times been called "dyshidrosis" (Tilbury Fox) or "pompholyx" or "cheiropompholyx" (Hutchinson), "recalcitrant eruptions of the palms and soles" (Andrews, Birkman and Kelly), "pustular bacterids" (Andrews and Machacek), "pustular psoriasis" (Barber), "relapsing phlyctenular dermatitis of the extremities" (Dore), "acrodermatitis continua" (Hallopeau), "toxic dermatitis," and perhaps may have been given other names. It is not always possible to make a definite clinical classification. Lehmann[11] called attention to the inadequacy of the differentiation between vesicular eruptions of the hands in the older textbooks. It is, however, comparatively easy to exclude fungous infection as a diagnostic possibility. That vesicular eruptions are predominantly nonmycotic was shown by M. Goldman,[4] working in our clinic, who examined vesicles of the hands and feet over a period of eleven months both in potassium hydroxide preparations and by culture. The number of patients (ninety-three) was rather small, but the finding of only 32 per cent of positive potassium hydroxide preparations and cultures is at least fairly representative. Fungi were found only on the feet, never on the hands in vesicular lesions. The percentage was higher in the summer and lower in the winter. These figures represent those apt to be found in a private office clientele in the North. Those from a free dispensary in the North or in private practice in the South might well show a higher percentage of fungous infection. A second study, by Thatcher and myself, demonstrated fungi in only one of thirty children of grammar school age who had been denied the privilege of a swimming pool because of suspected fungous infection of the feet. We know that an additional child in the group had potential fungous infection, because we had treated her for dermatomycosis pedis and onychomycosis.

A brief description of the aforementioned nonfungous vesicular and vesiculopustular eruptions will aid in their identification. Pompholyx (dyshidrosis) appears most commonly on the lateral surfaces of the fingers as small vesicles which dry up after a time, with exfoliation. They may extend onto or appear primarily on the palmar surfaces of the fingers or on the palms or wrists. They usually appear in patches, and are ordinarily bilateral in distribution. On the feet, the

site of predilection is the dorsal surface of the great toe, but they may occur on any part of the sides of the feet or on the soles. The distribution is usually bilateral (Figs. 5 and 6).

Fig. 5. Dyshidrosis of the soles. The clinical picture is identical to that of vesicular fungous infection, although the latter tends to be unilateral. Diagnosis can be made only on laboratory examination.

"Recalcitrant eruption of the palms and soles" is the name given by Andrews, Birkman and Kelly[2] to an eruption which they believed was identical to Barber's pustular psoriasis. Vesiculopustular plaques develop on the midportion of the palms or on the insteps (Fig. 7). Microscopic section revealed vesicopustules of the noninfectious type. All cultures were negative. Relief following removal of foci of infection led the authors to believe that the eruptions were sometimes caused by focal infection. This relation led Andrews and Machacek[1] to later designate the condition as "pustular bacterids of the hands and feet." A majority of their patients showed positive cutaneous tests to the toxin of hemolytic streptococcus or staphylococcus. The eruptions were likened to vesicular trichophytids, but they differ from the latter in their limited distribution. Positive patch tests, which would seem to be prerequisite to a diagnosis of bacterids, were not reported. Pustular psoriasis (Barber)[3] presents a similar if not an identical picture. The lesions do show some similarity to pustular psoriasis, which diagnosis should be made only if the same condition is found on other parts of the body.

"Relapsing phlyctenular dermatitis of the extremities" is the name given by Goldsmith[8] to a condition described by Dore[6] as a mild localized type of acrodermatitis continua. It is also con-

Fig. 6. Dyshidrosis of the palms with secondary infection. The pustules are surrounded by an erythematous border, are elevated, and the roof is under tension.

Fig. 7. Pustular dyshidrosis, also known as recalcitrant eruption of the palms and soles and pustular psoriasis.

sidered by Goldsmith to be related to Barber's pustular psoriasis. It is an unusual dermatosis characterized by discrete, widely spaced vesico-

pustules on the palms and soles. No organisms could be cultured by Goldsmith. Freudenthal studied microscopic sections from Goldsmith's patient and found intraepidermal vesicopustules which could not be distinguished from those of pompholyx or eczematoid dermatomycosis.

Acrodermatitis continua (Hallopeau) is synonymous with the noninfectious variety of dermatitis repens. Vesicopustules appear on the distal portions of the fingers, often beneath the nails. Cultures are usually sterile. The characteristic persistence of the eruption results in destruction of the nail root; inflammatory changes and disuse result in deformity of the fingers. The cause is not definitely known, but some French authors attribute the disease to infectious neuritis.

The infectious variety of dermatitis repens is characterized by tense pustules from which organisms can be cultured; the infection spreads beneath the stratum corneum to involve large areas. After healing, recurrence is the exception.

When patients with the aforementioned dermatoses are studied, it is ordinarily impossible to find organic causes for the eruptions. Fungi are not demonstrable and the vesicles and vesicopustules are usually sterile on culture. Study of the patients by the gross method of Libman, consisting of application of pressure on the styloid process of the temporal bone, or by Hollander's method[9] of placing part of a coarse metal grater beneath a blood pressure cuff will demonstrate that the patients are hypersensitive. The more delicate methods of Petersen, as used by van de Erve and myself,[17] will show that the patients overreact to many stimuli. These findings place the patients in the group of hyperactive, hypersensitive individuals who are prominent candidates for functional disease. Patch tests of all kinds are always negative,[13] although positive dermal reactions may be elicited by scratch or intradermal tests. It is therefore evident that epidermal hypersensitiveness does not exist in these patients. Fungi are occasionally found in macerated skin, usually between the fourth and fifth toes, but lack of fungous vesicles and finding of a negative patch test to trichophytin makes the diagnosis of "dyshidrosis on a fungous basis" illogical. The same consideration applies to the diagnosis of "bacterid," since epidermal hypersensitiveness should also be demonstrable in all epidermal vesicular eruptions resulting from hypersensitiveness to bacterial products. Relief following removal of foci of infection does not establish the diagnosis of "bacterid," since such removal will usually also produce improvement in a functional disease.

### Mechanism of Production

If the above mentioned array of dermatoses belongs in the field of functional medicine, what is the mechanism of production? Any explanation at the present stage of our knowledge can be only hypothetical, but certain evidence points to a nervous mechanism. It is generally recognized that the vesicular eruption in herpes zoster is produced by retrograde activity of the nerves in the involved region. It is also shown that transmission of impulses through nerves takes place as the result of formation of acetyl choline or sympathin at their relay points and endings. For instance, Rothman and Coon[16] have demonstrated that injection of acetyl choline produces a local response in the form of goose flesh which cannot be distinguished clinically or functionally from goose flesh produced by psychic stimulation. It is therefore not illogical to assume that generalized goose flesh is produced by liberation of acetyl choline at peripheral nerve endings. The work of Hopkins, Kesten and Hazel[19] strongly suggests a similar mechanism for the production of urticaria in patients who develop the eruption from either exposure to heat or from psychic stimuli. Leon Goldman[7] studied seven patients with cheiropompholyx by the following fifteen physical and chemical methods: physical examination with repeated pulse and blood pressure estimations; hand in water at room temperature—15 minutes; hand in water at 40° C.—15 minutes; hand in water at 10° C.—15 minutes; palmar diathermy—15 minutes; acetylbetamethylcholine chloride (Mecholyl)—5 mgs. injected; the same drug—25 mgs. injected; the same drug—iontophoresis to hand; pilocarpin injection; epinephrin injection; prostigmin (some patients); atropin injection; ergotamine tartrate injections; histamine-iontophoresis; estrogenic hormone (series). The only positive results, consisting of aggravation of an existing eruption or precipitation of an attack, were obtained after administration of mecholyl. Pearson[14] stated that he could reproduce an outbreak of dyshidrosis at will by injection of acetyl choline.

In our work, my associates and I have observed that patients with functional disease have a subnormal sense of fatigue, and we have seen a sense of easy fatigability and a functional dermatosis alternate for months at a time. This finding suggests that the products of exhaustion, instead of stimulating nervous pathways which would cause the patients to feel a sense of fatigue, are perverted, stimulate other pathways and produce functional disease (Fig. 8). At any rate, from the practical standpoint, we feel that we have circumvented the difficulty involved in satisfactorily explaining the presence of a functional disease to the patient. Instead of telling him that he is "nervous," which patients do not usually wish to hear, we explain to him that his hyperactive, hypersensitive nervous system has exhausted the body, but that instead of making him feel tired, the stimulus is perverted through other nervous channels and produces the signs and symptoms of functional disease. Most of the patients state: "Oh, I never feel tired."

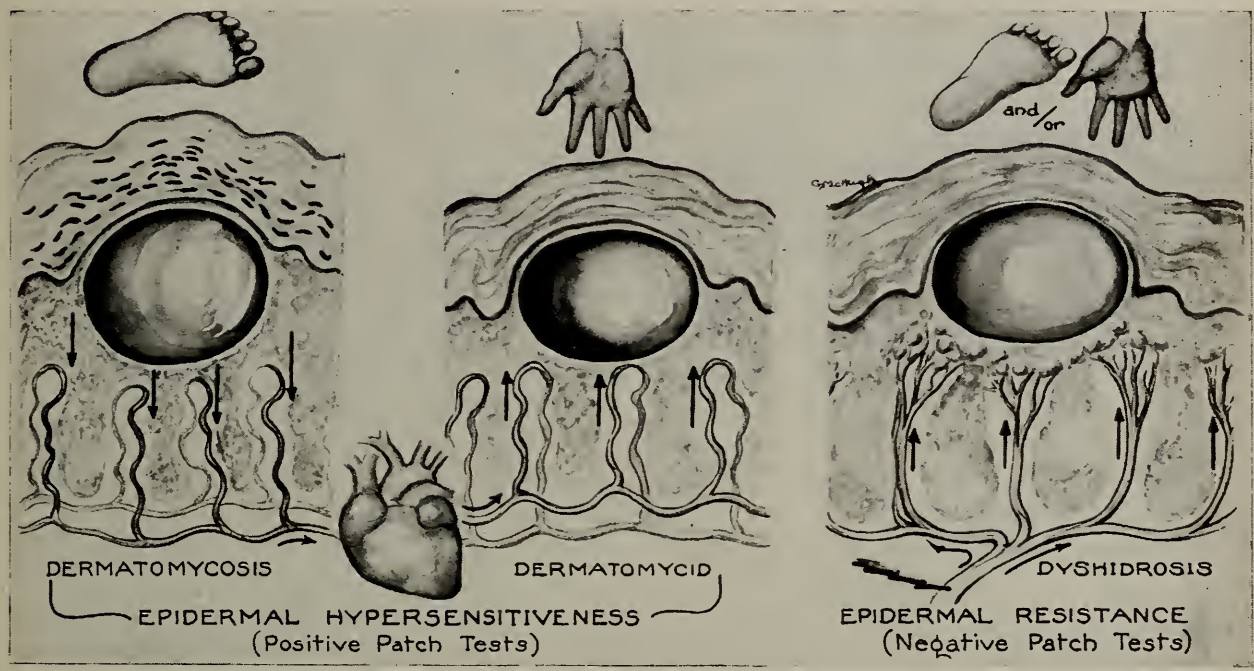


Fig. 8. *(Left)* Diagrammatic representation of the mechanism of production of eczematoid ringworm of the feet and allergic eruption on the hands. The allergen is absorbed from the soles and carried by the blood stream to the palms.

*(Right)* Hypothetical method of neurogenic production of vesicles in functional dermatoses. An irritant is released at the nerve endings which would produce vesicles in anyone's skin since the patients never show positive patch tests.

## Diagnosis

The eruption is carefully studied according to the above considerations. If it has the characteristics of eczema-dermatitis venenata, diagnosis should be only tentative until a positive patch test has been elicited. Fungi should be searched for, keeping in mind the rule that fungi must be found in vesicle roofs before diagnosis of vesicular eczematoid ringworm can be made. A few hyphæ in macerated skin between the fourth and fifth toes or in a nail do not constitute sufficient evidence for diagnosis of a vesicular eruption of the feet as fungous infection or an allergic dermatomycid of the hands; the fungi must be found in the vesicle roofs. Epidermal hypersensitiveness may be demonstrated by a positive patch test to trichophytin on the thin skin of the arm or elsewhere on the body. Toxic vesicular eruptions of the palms and soles are diagnosed when the patient has had previous prolonged extensive severe exudative dermatitis, especially of the legs.

If the above diagnosis cannot be made, the patient should be studied from the standpoint of neurocirculatory instability. Family history and evaluation of the patient himself usually give a

clue. When in doubt, fortification of ordinary measures by a therapeutic test for functional disease often gives considerable support to the possibility.

### Treatment

The common reaction on the part of the physician when a patient presents vesicular, vesiculopustular, macerated or fissured lesions on the feet and/or hands is to diagnose fungous infection and to apply a strong ointment, such as Whitfield's ointment, which contains salicylic and benzoic acids. Whitfield's admonition that the ointment must be used with care on account of its high salicylic acid content has been ignored, with the result that dermatitis venenata is all too frequently produced. It should be remembered that vesicular fungous infection constitutes eczema produced by fungous allergens in an individual with a hypersensitive epidermis. The condition should, therefore, be treated first of all as eczema, and only after the acute stage has subsided can fungicidal medicaments be used with impunity.

In acute eczematoid eruptions, whether due to fungi or other allergens, mild preparations are indicated. The wet dressing is the mildest of all, and is indicated until the acute process has subsided. Large vesicles and bullæ should be opened and exfoliated epidermis should be carefully removed by means of small scissors and forceps. The two best wet dressings are potassium permanganate (1:8000, prepared by adding a one grain tablet to a pint of water) and aluminum subacetate (0.5 per cent), which should be pure and preferably not in the form of Burow's solution, ordinarily prepared by mixing lead subacetate and alum. We have seen considerable irritation from improperly prepared solutions of aluminum subacetate. Since it is usually not feasible to use wet dressings at night, they may be replaced by calamine liniment, which is not as drying as calamine lotion, since it contains olive oil and tragacanth. After the acute stage has subsided, calamine liniment may be used, along with a mild ointment such as three per cent ichthyol in zinc oxide ointment or a menthol phenol paste containing one-eighth per cent menthol and one per cent phenol. These ointments may be continued until the eruption has healed. Crude coal tar ointment is usually irritating if used on eczematoid eruptions.

In case vesicular fungous infection is diagnosed, after the acute stage has subsided, parasiticidal preparations may be used. A two per cent solution of iodine in benzol may be painted on the involved areas, to be followed by a dusting powder containing equal parts of tannic acid, boric acid and zinc oxide powder. On the following day, application is made morning and night of an ointment containing sulfur and salicylic acid. Three per cent of the former and two per cent of the latter is usually the initial strength, which may be gradually increased to tolerance. These two treatments are alternated every second day. Injections of trichophytin to decrease the epidermal hypersensitiveness may be tried. The allergic reactions on the hands will heal by themselves, but may be treated by mild applications if desired.

Infectious dermatitis repens is treated by means of continuous wet dressings of potassium permanganate throughout the day and five per cent ammoniated mercury ointment at night. If the patient is hypersensitive to ammoniated mercury, sulfathiazole ointment may be substituted in the same percentage. All pustules should be carefully opened and all exfoliated stratum corneum should be carefully removed with scissors and forceps.

In case a functional dermatosis is diagnosed, the patient should be first of all placed on a general regime for functional disease,[5] consisting of restriction of activities, a daily nap, daily exposure to sunshine, natural or artificial, and a general slowing up. Social problems should be solved if possible. Local treatment consists of wet dressings as aforementioned, to be followed by White's five per cent crude coal tar ointment, which is efficacious in restoring the normal keratinization cycle. Roentgen therapy, cautiously used, is advantageous in all varieties of dermatitis of the hands and feet.

### Summary

Vesicular eruptions of the hands and feet may be produced by irritants or allergens reaching the skin from the outside or by fungous allergens originating in the stratum corneum of the feet.

Allergic vesicular reactions (dermatomycids) of the palms may result from absorption of fungous allergens from the feet and transportation through the blood stream.

Many vesicular and vesiculopustular eruptions

of the hands and/or feet can be attributed to no organic cause, and evidently belong in the large group of functional diseases.

Local applications should always be mild at the start of treatment, to be replaced by stronger applications as the acute reaction subsides.

Local applications for functional dermatoses should be fortified by general measures designed for the relief of functional disease.

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The strength and virility of any nation, whether in peace time or at war, rest ultimately upon the fibre—the physical and moral fibre—of its manpower. Upon differences in the structure of these human building blocks likewise rests a nation's final fate. Even in placid peace time, it is the responsibility of the health worker to protect and safeguard a nation's human resources and to see to it that these are carried to the highest practicable level. In time of crisis, these responsibilities are augmented many fold.—*J. N. Baker, J. M. A. Alabama, June, '40.*

# Symptoms and Therapy of Autonomic Dystonia


By George W. Slagle, M.D.
Battle Creek, Michigan

George W. Slagle, M.D.
*B.S., University of Michigan, 1931. M.D., University of Michigan, 1933. Associate of American College of Physicians. Member of International Society of Gastro-Enterology. Member of Michigan State Medical Society. On active duty U. S. Navy Medical Corps.*


The disturbed economic and social conditions of the past one or two decades have given rise to an ever increasing number of patients who suffer from functional disorders of a neurotic type. Today practically all patients show some neurotic symptoms and in 75 to 80 per cent the disturbances manifested are wholly neurotic. As Moore[5] and others have stated, the majority of physicians abruptly dismiss such patients when the diagnosis of a neurosis is made. The patient is thus frustrated in obtaining relief from his symptoms and an aggravation of the pathologic state is fostered.

Conditions of neurotic origin are usually the result of fear either alone or more often in conjunction with other emotional disturbances. A fundamental weakness of the nervous system sometimes termed a neuropathic constitution, apparently forms the basic state upon which psychic disorders act to produce the abnormal functional conditions that we have come to recognize as neuroses. Among the numerous causes for fear accompanying depressed emotions are loss of economic security, inability to maintain family unity, broken romances, and war hysteria. The gastrointestinal tract seems to be particularly prone to show symptoms of disturbed function as a part of the complex resulting from emotional disturbances.

Stiller[8] first called attention to the frequency with which psychogenic dyspepsias were considered as "nervous" and says:

"That people develop gastric disturbances after financial losses and suffer from them until their financial conditions turn to the better, is an everyday experience."

Cannon[1] writes:

"Just as feelings of comfort and peace of mind are fundamental to normal digestion, so discomfort and mental discord may be fundamental to disturbed digestion."

"An emotional disturbance affecting the alimentary canal is capable of starting a vicious circle; the stagnant food, unprotected by abundant juice, naturally undergoes bacterial fermentation, with the formation of gases and irritant decomposition products. These in turn may produce mild inflammation or be absorbed as substances disturbing to metabolism, and thus affect the mental state . . ."

"The importance of avoiding so far as possible the initial states of worry and anxiety, and of not permitting grief and anger and other violent emotions to prevail unduly, is not commonly understood, for the subtle changes wrought by these emotional disturbances are not brought to consciousness, and are clearly known solely through physiological studies."

A number of other authors have also emphasized the part played by psychic factors in the genesis of nervous digestive disorders. Rosenbach,[6] for instance, used the term *Emotionsdyspepsie* for dyspepsia following emotional upsets and Strumpell[9] mentions *psychogene Dyspepsien.* He believed that the majority of cases of this type had their source in primary changes in the psychic life of the patient and called special attention to anxiety and experiences productive of anxiety, as the causative factor, and not the result, of the gastro-intestinal disturbance. He said:

"It is not the digestive tract trouble that makes the patient a hypochondriac, but hypochondriasis that causes the digestive tract trouble."

The possibility that disorders that are at first functional, may later develop into somatic disease is recognized by Lewis,[4] who states that the gastro-intestinal tract is readily affected by emotional influences which produce alterations in the tonicity and secretion of these hollow mobile organs. In these particular viscera illnesses frequently begin on a reversible basis and later become irreversible and organized into structural pathology. Thus, there occur various syndromes ranging from "simple dyspepsia" to the more severe reactions such as anorexia nervosa, peptic ulcer and types of colitis. The frequency of instinctive conflicts that are particularly apt to engender gastro-intestinal troubles, emphasize the need for studying the personality of the patient and his particular patterns of adaptation to the environment.

The inadequacy of testing the results of any therapeutic adjunct solely from the subjective response is admitted and because of the inadequacy of the method some attempts at objective measurement have been made; one of these consists of correlating the serum choline esterase level with clinical evidence of autonomic activity.

Since acetylcholine is so intimately concerned with transmission of nervous impulses in the autonomic nervous system and especially the parasympathetic division, Jones and Tod,[3] investigated the level of serum esterase as an indirect measurement of acetylcholine production, in 142 neurotic and psychotic cases in which autonomic imbalance was demonstrated clinically. Of this number, twenty patients showed a serum esterase level above the normal limit; specifically there were seven severe anxiety neurotics, three agitated depressives, three maniacs, two cases of exophthalmic goiter, and five made up of vagotonic, an enuretic, a paraphrenic, a hysteric, and a hyperplastic adrenal cortex. Of the sixteen cases with the choline esterase below the normal limit, there were five epileptics, three melancholic stupors, two catatonic schizophrenics, two senile depressions, two depressions, one postencephalitic, and one case of Cushing's syndrome with definite evidence of adrenal hyperplasia, e. g., marked hypertension, diminished glucose tolerance, virilism, et cetera.

In cases with serum esterase above normal there were, in practically every one, evidences of autonomic overactivity and it seemed reasonable to suppose that this finding was in some way connected with the high serum esterase. Moreover, the cases showing a choline esterase level below normal were clinically in marked contrast to the previous group. Thus, the evidence favored the concept that the level of the choline esterase in the blood is to some degree proportionate to the state of autonomic activity.

The clinical experience of these authors had shown that Bellergal is beneficial in diminishing the somatic symptoms resulting from autonomic overactivity in neurotic patients and because of the relationship of acetylcholine to autonomic patients the effect of the prolonged administration of this drug upon the choline esterase level in the blood in a selected group of patients was investigated. With it a definite fall in the level of choline esterase was obtained. The investigators believed, however, that the clinical improvement in neurotic cases was dependent upon a stabilizing effect of the drug upon the autonomic nervous system rather than upon any alteration in the level of the choline esterase or acetylcholine.

A previous report covering 217 patients who

were treated for dystonia of the vegetative nervous system with particular reference to gastro-intestinal disturbances was made by the author in 1938,[7] and to this number it is now desired to add 100 cases making a total of 317.

**The first series was undertaken to determine just what beneficial results, if any, might be expected from the addition of Bellergal to the treatment previously employed. Thus the full therapy in 217 cases, already mentioned, consisted of this medicament which is a sedative of the neurovegetative system and apparently, therefore, a logical drug in just such cases, a sanitarium regime consisting of physiotherapy, directed physical exercise, sunbaths and selected diet. The patients were all away from home and free from the worries and responsibilities entailed by their usual daily routine. Consequently, any improvement, especially if only transitory, might have been due to the above factors rather than to the effect of the drug except for the fact that all patients were followed, for periods of six to eighteen months, during which time they carried on their usual and oftimes even increased routine.**

The results of this medication in addition to our routine treatment in 217 cases of dystonia of the vegetative nervous system were that one hundred and ninety patients (88.1 per cent) showed some form of improvement; fifty-two (24.6 per cent) showed "greatest improvement"; one hundred thirty-eight (63.5 per cent) were "moderately improved" and two (0.9 per cent) showed what we interpreted as sensitization and the drug was discontinued.

In view of the fact that most of the "greatest improvement" occurred in persons continuing their daily routine, we have felt that the use of the drug has a definite place in the ambulatory treatment of these cases. None of the patients followed over this period have shown any deleterious effects of prolonged dosage.

The results of the therapy were so satisfactory in the first series that extension of the observations seemed desirable.

In the present series of 100 patients at the time this report was compiled, sixty-one were under active treatment while thirty-nine were not. Of the inactive group totaling thirty-nine patients there were fourteen males and twenty-five females and in the active group consisting of sixty-one there were twenty-three males and thirty-eight females. In the entire group of patients there was a total of forty-three different symptoms, twenty-six patients exhibited one, forty-seven showed two, twenty-five manifested three and two had four. Thus, the group showed a total of 206 symptoms almost all of which were manifestations of nervous dystonia. These were distributed as follows: vagotonia, sixty-eight; spastic colon, forty-eight; menopause, thirteen; thyro-ovarian deficiency, eleven; liver and bile tract disease, ten; peptic ulcer, six; anemia secondary, six; hypothyroidism, five; myocarditis, four; hypertension, three; pylorospasm, three; tachycardia, two; hypoglycemia, two; pernicious anemia, two; malignancy, two; asthma, two; ulcerative colitis, one; anxiety neurosis, one; hyperthyroidism, one; enterocolitis, one; Menieres disease, one; cerebral lesion (?), one; dysphagia, one; hay fever, one; lymphadenitis, one; thyroid heart, one; menstrual, one; Stokes Adams disease, one; neutropena, one; Parkinsonism, one; pancreatic irritation, one; gastro-intestinal hypertonia, one; achlorhydria, one; Staph. sept., one; hypo-acidity, one; prostatitis, one; visual disorder, one; arteriosclerosis, one; nutritional deficiency, one; cystitis, one.

The results obtained in the inactive group were for the males, eight good, four fair, one poor, and one unknown; for the females nineteen good, three fair, one poor, one unknown and one experienced a reaction causing cessation of treatment. For the active group of the twenty-three males, twenty-two good, one poor due to reaction and for the thirty-eight females, twenty-eight were good, eight fair and two poor due to reaction.

Consolidation of the data above presented for 100 patients shows that the results of therapy were good in seventy-seven, fair in fifteen, poor in five, unknown in two, and due to reaction in one the medication was discontinued. In this new series 92 per cent of patients showed some degree of improvement. This figure compares very favorably with the 88.1 per cent improved as reported in the first series of 217 patients previously mentioned.

## Discussion

In the treatment of patients who suffer from functional disturbance of visceral physiology that result from or accompany emotional upsets and especially those who are anxious, apprehen-

sive, depressed and even with suicidal tendencies, the administration of Bellergal quickly overcomes the unfavorable psychic states and prepares the way for further improvement.

One of the earliest changes brought about by this treatment in practically every patient was increased self-confidence, which apparently resulted from a lessened sensitivity to environmental influences. This betterment is accompanied by improved rest, increased appetite and a disappearance of such hysterical symptoms as anorexia, nausea, vomiting, vague pains, tachycardia, flatulence and hyperhidrosis.

As a commonly seen example of autonomic dysfunction spastic colitis has been described as an almost pure vagotonia and hence an excellent condition in which to observe the effects of any therapy. Patients of this type responded to our method of treatment almost at once; abdominal pain decreased, bowel function improved, the appetite increased and gradually foods could be taken that previously were withheld. A gain in weight was observed in some of these patients who previous to treatment had been on such a narrowly restricted diet that they had fallen below average.

**To produce lasting results, however, especially in long standing cases, medical therapy in functional nervous disorders must be accompanied by continued careful supervision of the diet, an improvement in habits of sleep, work and recreation, and above all a happy mental state must be cultivated. In addition, the patient must adjust his mode of life so that he does not become fatigued as a result of undertaking more than he can successfully accomplish and must manage his personal affairs so that he is not subject to worry and fear. Practically, it is not sufficient for the physician to realize the importance of a tranquil environment for his patient and to merely call attention to it as a part of the treatment. Instead, he may at times even find it necessary to probe deeply into personal affairs in determining the unhappy basic conditions and bringing about their correction. Thus, for the patient who is hopelessly involved financially, a petition in bankruptcy will probably be the very best prescription.**

The usefulness of medication is of course greatest during the critical stage in which the patient is undergoing the readjustment necessary for him to meet the realities of life. The sedative action of bellergal as already mentioned enables him to rest, and favorably modifies disturbed visceral functions. The dosage must, of course, be adjusted to the needs of the particular patient under treatment but even in severe cases, four to six tablets daily will usually prove adequate for the initiation of therapy. Subsequently, the amount given should be reduced to the smallest quantity that will produce the desired effect; often only one or two tablets daily will be required.

### Summary and Conclusions

In the series of 100 patients the results obtained by the use of sedative medication as an adjunct to our routine treatment fully confirm the beneficial effects experienced in a previous series covering 217 similar cases.

The sedative action of the drug we selected extends to all portions of the neurovegetative system and it, therefore, overcomes or favorably modifies the state of general erethism that is so evident in patients of the type described herein.

**While proper medication is an indispensable part of therapy in patients of the neurotic type, it is also necessary to improve environmental conditions and to correct faulty hygienic practices, if lasting results are to be obtained.**

To the series of 317 patients reported herein and elsewhere by the author, further numbers will be added at future intervals but in the meanwhile it is hoped that others will undertake similar studies.

Editor's Note: The following statement of the Council on Pharmacy and Chemistry of the A.M.A is printed for the information of the readers.

"The Council on Pharmacy and Chemistry has made no examination of Bellergal nor has the American distributor of the preparation, Sandoz Chemical Works, requested the Council to consider the product with the view of determining its acceptability for inclusion in "New and Nonofficial Remedies."

"According to information in the Council's files each Bellergal tablet is stated to contain 0.1 mg. of Bellafoline (a proprietary preparation of belladonna alkaloids), 0.3 mg. of Gynergen (ergotamine tartrate; see N.N.R. 1940, p. 257), and 20 mg. of phenobarbital. Bellergal is claimed to be a "balanced combination of sedatives" useful in numerous disturbances resulting from hypertonicity, or amphotonia, of the vegetative nervous system.

"We know of no satisfactory evidence to support the view that this particular combination of three potent

drugs in fixed proportions represents a notable contribution to rational therapeutics."

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# Mental Disorders as Cause of Rejection in Michigan Registrants

## A Study of 340 Cases


By Harold A. Furlong, M.D.

Myra E. Hilpert, A.B.

Clifford H. Greve, M.S.P.H.

HAROLD A. FURLONG, M.D.
*M.D., University of Michigan, 1924. Medical Officer for the Selective Service of Michigan. Administrator of the Michigan Council of Defense. Fellow of the American College of Surgeons. Diplomate of the American Board of Obstetrics and Gynecology. Member of the Michigan State Medical Society. Lieutenant Colonel, Medical Corps, USNG. State Medical Officer Selective Service of Michigan.*

MYRA E. HILPERT, A.B.
*A.B., University of Michigan, 1936. Nosologist, Michigan State Headquarters for Selective Service.*

CLIFFORD H. GREVE, M.S.P.H.
*B.S., University of Michigan, 1936. M.S.P.H., University of Michigan, 1937. Statistician for the Division of Venereal Diseases of the Michigan Department of Health. Member, American Public Health Association. Member, National Sociological Society. First Lieutenant, Medical Administrative Corps, Res. Selective Service of Michigan.*


OF THE 25,544 Michigan men reporting for military training from the beginning of induction in November, 1940, through April, 1941, 3,808 or about 15 per cent were rejected by the Army Medical Examiners as unfit for military service. Principal cause for rejection was poor eyesight; second most important cause was dental defects. Mental and nervous disorders, third in order of numerically important causes of rejection, accounted for 609 rejections or about 16 per cent of the total of 3,808 men rejected.

Previous experience has clearly demonstrated the great necessity of avoiding the induction into military service of men with mental and nervous disorders. Recent medical literature refers again and again to the vast expenditures made by the Government during and after the World War for the care of mental cases. Every effort is being made to avoid this expense in the present defense program by more extensive use of psychiatric consultations both during the Local Board and Medical Advisory Board examinations and at the Induction Stations where the final examination is made.

Because of mental and personality defects, many men are not suitable for military service. Either because of their pronounced personality disorders they are unable to live comfortably in the close contact with a group so diverse in type as a military organization, or because of mental deficiencies they cannot absorb the technical knowledge military personnel must possess.

Methods of modern warfare have changed vastly. The heavily mechanized and motorized forces, the development of aerial armadas and the changes in communications have made correspondingly great changes in the man-power requirements. Modern warfare is requiring great individual technical skill and resourcefulness. To fill the armed forces with dullards only delays the training program and cripples the effectiveness of the armed forces in action. Warfare has always demanded the best men, and modern warfare has not changed this primary need. The necessity, therefore, becomes apparent of culling out the mental and physical misfits to secure men vocationally, mentally and physically qualified for service in the present armed forces.

Michigan Selective Service Headquarters was especially interested in the group rejected at induction for mental handicaps from the practical standpoint of planning desirable machinery for sending suspected cases to psychia-

TABLE I. FIRST 340 MICHIGAN REGISTRANTS REJECTED AT INDUCTION AS MENTALLY UNFIT FOR TRAINING BY REASON FOR REJECTION AND BY OCCUPATIONAL CLASS BEFORE INDUCTION

| Occupational Class (Prior to Induction) | Mentally* Deficient | Constitutional Psychopathic State | Psychoneurosis | | Schizoid Trends | Mood Disorders | History of Mental Disease | Total All Causes |
|---|---|---|---|---|---|---|---|---|
| | | | Anxiety Type | Other and Unspecified Types | | | | |
| Unemployed | 21 | 25 | 2 | 5 | 8 | 2 | 6 | 69 |
| Unskilled Labor | 39 | 43 | 20 | 23 | 13 | 1 | 3 | 142 |
| Semi-skilled Labor | 8 | 25 | 19 | 22 | 7 | 3 | 2 | 86 |
| Skilled Labor | | 2 | 6 | 3 | | | | 11 |
| Clerical Help | | | 10 | 3 | 2 | 1 | | 16 |
| Sales Clerks, Salesmen and Traveling Representatives | | | 5 | 2 | 2 | 1 | | 10 |
| Semi-professional and Professional | | 1 | 1 | | | | | 2 |
| Proprietors | 1 | 3 | | | | | | 4 |
| Total All Classes | 69 | 99 | 63 | 58 | 32 | 8 | 11 | 340 |

*Mentally Deficient, i.e., Intelligence Too Low.
Note: Registrants rejected because of epilepsy are not included in this study.

**trists before induction. In order to evaluate present procedures Michigan Selective Service Headquarters concerned itself to discover: what these men were doing prior to induction, what happened to them after rejection, whether or not it was likely that rejection for mental disorders caused social stigma, whether or not the men were unduly concerned over the result of their psychiatric examinations, whether or not rejection for this cause was a factor in preventing subsequent employment.**

Letters were sent to the Local Boards in regard to the first 376 men rejected as mentally unfit for military service. Information was requested concerning the following: (1) The occupation of the registrant; (2) His economic and community standing; (3) History of contact with social agencies (courts, welfare, institutions, et cetera); (4) After rejection at the Induction Station was he able to regain his employment? (5) Has the registrant made any complaint? To date replies for a total of 340 cases have been received.

The Boards had little difficulty finding at least some information concerning the registrant's occupation. This is contained on the Form 200, Report of Physical Examination. The Board was aware, of course, if the registrant had made complaint. For 311 of the 340 registrants the Boards were able to secure information concerning items 2, 3, and 4. In cases of Boards in rural areas, some one of the Board members was usually acquainted with pertinent facts. Boards in urban areas were able to obtain information through organized channels of community social agencies. Answers were received in statements of many different forms. Some were long letters giving detailed reports; many were well-written case histories. The majority of replies, however, were brief notes. One word answers were not uncommon; and these, unfortunately, had to be tabulated with the rest, though the information was often not specific enough to permit precise classification.

In reviewing interpretations of data collected in this manner it must be remembered that the purpose of the study was that outlined in a preceding paragraph. There was no attempt to make an exact scientific survey from an objective statistical point of view. The results summarized here yield interesting information reliable

enough to portray definite trends bearing on the immediate situation. The sample is not representative of the mentally incapacitated in the general civilian population for many reasons. Among them is the self-evident fact that married men, probably the more capable men, never reach the induction center.

TABLE II. FARMERS AND FARM LABORERS REJECTED AT INDUCTION AS MENTALLY UNFIT FOR TRAINING BY REASON FOR REJECTION AND BY OCCUPATIONAL CLASS BEFORE INDUCTION

| Occupational Class (Prior to Induction) | Mentally Deficient | Constitutional Psychopathic State | Psychoneurosis | | Schizoid Trends | Total All Causes* |
|---|---|---|---|---|---|---|
| | | | Anxiety Type | Other and Unspecified Types | | |
| Farm Laborers | 11 | 4 | 2 | 2 | 2 | 21 |
| Farm Laborers Specifically Described as Working on Relatives' Farm | 10 | 8 | 4 | 3 | | 25 |
| Unpaid Family Laborers —Farming | 3 | 2 | | 1 | | 6 |
| Total Farm Laborers | 24 | 14 | 6 | 6 | 2 | 52 |
| Farmers (not specified as farm laborers) | | 5 | 3 | 1 | | 9 |
| Grand Total Farmers and Farm Laborers | 24 | 19 | 9 | 7 | 2 | 61 |

*No Farmers or Farm Laborers were rejected for "Mood Disorders" or for "History of Mental Disease," two additional classes to be found in other tables.

Table I presents the number of rejectees according to major occupational groups by reason for rejection. It appears that about half of the rejectees were labeled "mentally deficient" and "constitutional psychopathic state." More than a third were classified "psychoneurosis." This title was usually modified according to type of psychoneurosis, the types more frequently reported being: anxiety (for which a separate tabulation is shown in Table I), conversion, convulsive, neurasthenic, traumatic, hysterical, obsessional, and delusional. Other important classifications were: "schizoid trends," "mood disorders," and "history of mental diseases."

Of the total 340 cases studied here, 42 per cent were unskilled laborers prior to induction and 20 per cent were unemployed. In contrast, 57 per cent of the total classified "mentally deficient" had found employment as unskilled laborers and 30 per cent were unemployed. It is notable that only one of the 69 "mentally deficient" cases appears to have done better than semi-skilled labor. The distribution for registrants rejected because of "psychoneurosis" is strikingly different. A much greater proportion of these individuals held jobs as semi-skilled laborers, a few as skilled laborers. About three out of every four white-collar workers disqualified were labeled "psychoneurosis," usually "psychoneurosis, anxiety type." None of the white-collar laborers was rejected as "mentally deficient."

If more exact information were known it is possible that even greater numbers of the "mentally deficient" and "constitutional psychopathic state" cases would be classified as technically unemployed. A large proportion (46 per cent) of the unskilled laborers from these classes were unskilled farm laborers. More than half of them lived on relatives' farms. In some cases the report specified that no money compensation was received for services. Special information about this was not requested, and it is likely that many more farm laborers were unpaid than are so classified here. It is at least questionable how many of these unpaid family workers could have found remunerative employment away from home. No doubt some of them might correctly be included with the unemployed, swelling totals in Table I and in Table III for the unemployed group.

Table II shows the distribution for farm la-

TABLE III. URBAN REGISTRANTS REJECTED AT INDUCTION AS MENTALLY UNFIT FOR TRAINING BY REASON FOR REJECTION AND BY OCCUPATIONAL CLASS BEFORE INDUCTION

*(All Farmers, Farm Laborers, and Woodsmen Excluded from Figures for This Table)*

| Occupational Class (Prior to Induction) | Mentally Deficient | Constitutional Psychopathic State | Psychoneurosis | | Schizoid Trends | Mood Disorders | History of Mental Disease | Total All Causes |
|---|---|---|---|---|---|---|---|---|
| | | | Anxiety Type | Other and Unspecified Types | | | | |
| Unemployed | 21 | 25 | 2 | 5 | 8 | 2 | 6 | 69 |
| Unskilled Labor | 13 | 27 | 14 | 17 | 11 | 1 | 3 | 86 |
| Semi-skilled Labor | 8 | 20 | 16 | 21 | 7 | 3 | 2 | 77 |
| Skilled Labor | | 2 | 6 | 3 | | | | 11 |
| Clerical Help | | | 10 | 3 | 2 | 1 | | 16 |
| Sales Clerks, Salesmen and Traveling Representatives | | | 5 | 2 | 2 | 1 | | 10 |
| Semi-professional and Professional | | 1 | 1 | | | | | 2 |
| Proprietors | 1 | 3 | | | | | | 4 |
| Total | 43 | 78 | 54 | 51 | 30 | 8 | 11 | 275 |

borers and for farmers (all those not especially described as farm laborers were tabulated as farmers). Comparison of Tables I and II reveals that 35 per cent of the total "Mentally Deficient" were farm laborers while only 14 per cent of the "Constitutional Psychopathic State" cases were farm laborers and only 10 per cent "Psychoneurosis" were farm laborers.

Table III may be described as Table I, less Table II. Table III is similar to Table I, but figures for farm laborers and farmers, as well as for woodsmen (there were only four lumberjacks in the entire distribution) have been excluded. Omission of the rural constituent obviously does not alter the disposition of "Mentally Deficient" and "Constitutional Psychopathic State" cases to unskilled labor and of "Psychoneurosis" cases to semi-skilled labor as evinced in Table I.

Table IV presents the apportionment for factory laborers. Farm laborers are not included as Other Laborers in Table IV. It is evident that comparatively few registrants rejected for "constitutional psychopathic state" were working in factories. By contrast, twelve of the eighteen laborers labeled "Schizoid Trends" were factory workers.

A summary of available figures for laborers has been computed for each important cause of rejection, Table V. While the desirability of a larger sample cannot be questioned, certain facts are manifest. Among employed laborers rejected most "mentally deficient" were farm laborers; most "constitutional psychopathic state" cases were non-factory city laborers, the "psychoneurosis" were predominately urban laborers, factory laborers leading with other laborers a close second; and the "schizoid trends" were mainly factory laborers. It is worth mentioning that none of twelve truck drivers (included in tabulations Table IV, with non-factory semi-skilled laborers) were rejected as mentally deficient; eight of the twelve were classified "psychoneurosis."

Michigan Selective Service Headquarters was surprised to find that 96 per cent of these men rejected as mentally incapacitated had made no complaint whatsoever to their Local Boards. A number of them had been back to the Local Board office and had seemed very happy not to have been inducted. It is possible, of course, that elation over rejection is not peculiar to men rejected for mental disorders. However, the fact that only four per cent were disturbed enough to complain waylaid fears of Michigan Selective Service Headquarters that rejection had con-

TABLE IV. FACTORY LABORERS COMPARED WITH OTHER LABORERS* REJECTED AS MENTALLY UNFIT FOR MILITARY TRAINING BY OCCUPATIONAL CLASS AND BY REASON FOR REJECTION

| Occupational Class (Prior to Induction) | Mentally Deficient | Constitutional Psychopathic State | Psychoneurosis | | Schizoid Trends | Mood Disorders | History of Mental Disease | Total All Causes |
|---|---|---|---|---|---|---|---|---|
| | | | Anxiety Type | Other and Unspecified Types | | | | |
| Factory Unskilled Laborers | 7 | 10 | 6 | 9 | 6 | | | 38 |
| Other Unskilled Laborers | 8 | 19 | 8 | 8 | 5 | 1 | 3 | 52 |
| Factory Semi-skilled Laborers | 4 | 9 | 10 | 13 | 6 | 1 | 1 | 44 |
| Other Semi-skilled Laborers | 4 | 11 | 6 | 8 | 1 | 2 | 1 | 33 |
| Factory Skilled Laborers | | | 4 | | | | | 4 |
| Other Skilled Laborers | | 2 | 2 | 3 | | | | 7 |
| Total Factory Laborers | 11 | 19 | 20 | 22 | 12 | 1 | 1 | 86 |
| Total Other Laborers | 12 | 32 | 16 | 19 | 6 | 3 | 4 | 92 |
| Grand Total All Laborers | 23 | 51 | 36 | 41 | 18 | 4 | 5 | 178 |

*Farm laborers not included in figures for this table.

TABLE V. DISTRIBUTION FOR FARM LABORERS, FACTORY LABORERS, AND OTHER LABORERS REJECTED AT INDUCTION FOR INCAPACITATING MENTAL DISORDERS

| Type of Laborers | Mentally Deficient | Constitutional Psychopathic State | Psychoneurosis | | Schizoid Trends | Total All Causes |
|---|---|---|---|---|---|---|
| | | | Anxiety Type | Other and Unspecified Types | | |
| Farm Laborers | 24 | 14 | 6 | 6 | 2 | 52 |
| Factory Laborers | 11 | 19 | 20 | 22 | 12 | 84 |
| Other Laborers | 12 | 32 | 16 | 19 | 6 | 85 |
| Total All Laborers | 47 | 65 | 42 | 47 | 20 | 221 |

tributed measurably to any unfortunate mental attitudes these rejectees may have had.

The reports regarding the ability of rejected men to regain former employment also were encouraging to Michigan Selective Service Headquarters. Definite information that the rejectee had not returned to his job was recorded for only thirty-two cases or 12 per cent of the 271 employed prior to induction. Indications are that some who had not returned to their old jobs when this tabulation was made have done so more recently. Reports for others stated that they did not go back to the same job primarily because they wanted to look around for a better job, or because they wanted to change their environment, improve their living habits and get a job in another locality. Since jobs are plentiful at present, it is reasonable to assume that these men may better their economic position, and possibly ameliorate their mental health through this change of work. When these tabulations were made twelve, or 38 per cent of thirty-two who

did not return to their former employment, had obtained other jobs in the same occupational class.

In only three cases did the registrant complain that he could not return to his former work because he had been rejected for a mental disorder. For one of these the emphasis was upon the ailment rather than upon the fact of rejection: the statement in this case as returned to Michigan Selective Service Headquarters was, "Could not regain employment because of his mental infirmity."

**Subsequent to rejection one registrant was committed to an institution for mental disease on the recommendation of his private physician, others obtained the services of competent psychiatrists. It is a mistaken but popular notion that only minor impairments such as defects of teeth and eyes are correctable. The medical examination of draftees will disclose various morbid conditions which previously had been undiagnosed. The greater number of these, including psychiatric disorders, will respond to modern medical treatment.**

The discussion of employment is incomplete without mention of registrants who were unemployed prior to rejection. Of the sixty-nine registrants who were unemployed prior to rejection (Table I) twelve were reported as having found employment after rejection. They had been hired as unskilled laborers. No doubt others found employment unknown to their Local Boards. Still others may have found employment since this tabulation was made. Several registrants, successful in finding work after rejection, expressed themselves as having been unable to secure work before the examination due to uncertainty of being drafted. However, among the unemployed were a number described as never having had any continuous employment. Ten per cent of the unemployed (and four per cent of the unskilled laborers) belong in this class.

As has been explained before, information concerning items: (2) Economic and community standing, and (3) History of contact with social agencies (courts, welfare, et cetera) was reported for 311 of the total 340 rejectees. From the information returned for the 311 cases some estimate can be made of the way the group met conditions in civilian life. That many of the individuals were not making satisfactory adjustments and had been real social problems to their communities is evidenced by these figures: four had been confined to vocational or training schools; nine had histories of arrests for drunkenness; sixteen, histories of other arrests or court records; twenty-four, histories of welfare assistance.

Undoubtedly many of the registrants rejected as mentally incapacitated had never been community problems but were meeting conditions in ordinary life only with help and protection from family and relatives. In some cases the families appeared to be able to make a permanent place for the handicapped individuals without much inconvenience to themselves. Such were most frequently farm families. In other cases it was apparent from the reports that the individual was imposing on relatives who helped him only at great sacrifice. The Local Boards specified in eleven cases that the rejectee's apparent "good" community standing was derived directly from the standing of family and relatives.

There were those who appeared to get along in civil life because they conformed well enough never to have attracted attention to themselves, but who, quite evidently, were leading very poor existences. Among these might be mentioned 13 who had never had any continuous employment and 12 who were employed only as "pin boys" in bowling alleys.

The portion of the total 340 making unsatisfactory and marginal adjustments in civilian life serves only as an indicator of the number, doing well enough, whose education and training should have made it possible for them to do far better. In this group are individuals with complete university training in a profession who are unemployed, employed as low-salaried clerical workers or as unskilled and semi-skilled laborers. A more detailed study of this picture might corroborate the often-quoted investigations which announce mental and personality handicaps as the factor determining individual failures "to make good on the job."

## Summary

From this brief study of 340 registrants rejected at the Induction Stations in Michigan it would seem that the Army had succeeded in pre-

venting the induction of a large group of registrants who, because of mental and nervous disorders, were unsuitable for military service. That these men would be unable to absorb the highly technical training necessary to their efficient use in the armed forces is evidenced by their occupational status in civil life. The fact that these men are unsuitable for military service does not in the least detract from their value in the National Defense Program. These men can perform valuable services in the unskilled vocations on the home front, especially in agriculture where labor is most difficult to obtain at present. In fact, these men for the most part were well adapted for this type of labor.

When the medical profession and the general public understand the reasons for the rejection of such cases by the Army, from the Michigan experience there would seem to be little cause for alarm because of unfavorable public reaction.

Granting that more time for the psychiatric examination, and the checking of suspected cases with civil authorities is desirable at the Induction Stations, it is conceivable that more psychiatric cases could be discovered. It must be conceded, however, that the present practices are at least fulfilling the expectations of the Army in a fairly successful manner in eliminating many men who are not only vocationally poor material for military training, but definitely potential claimants for future governmental medical care.

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### McLEAN RESEARCH AWARD PRESENTED FOR FIRST TIME

Dr. Robert Mayo Tenery, who last year was a research fellow in the department of surgery at the Wayne University College of Medicine, has been named the first recipient of the Dr. Angus McLean Award for Research, to be presented annually by the Wayne University chapter of Nu Sigma Nu, national medicine fraternity.

The award, provided by the widow of the late Board of Education member whose name it bears, is presented to a person who does outstanding graduate research during a given school year. Dr. Tenery did his work during 1940-41 on blood changes from excessive burns. Since leaving Wayne in the spring of 1941 he has become a resident and fellow in surgery at the Presbyterian Hospital in New York City.

# De Officiis in Anaesthesia*

By Wesley Bourne, M.D., Montreal

WESLEY BOURNE, M.D.

*M.D., C.M., McGill University, 1911; M.Sc., McGill, 1924; F.R.C.P., Canada, 1931; D.A. (R.C.P & S. Eng.) 1938. First Hickman Medalist, Roy. Soc. of Medicine, 1935. Lieutenant-Colonel, R.C.A.M.C. Lecturer (Anæsthesia) Department of Pharmacology, McGill University. Author of many publications on anæsthesia. Member of the American Society for Pharmacology and Experimental Therapeutics.*

"Ita illi ipsi doctrinæ studiis et sapientiæ dediti ad hominum utilitatem suam prudentiam intellegentiamque potissimum conferunt; . . ."†

Cicero, *de Officiis,* 1, XLIV, 156.

LONG before Plato emphasized the provisional character of his philosophical exposition that the *true* must be distinguished from the *likely* or probable, Parmenides had divided his interpretation into two sections, "the Way of Truth" and "the Way of Opinion," while Democritus had drawn a sharp line of division between the "Dark Knowledge" we have of sensibles and the "Genuine Knowledge" which apprehends the only realities, the Atoms and the Void.[9] Plato is most careful to mark the hypothetical and uncertain character which attaches to all physical investigation, he is serious with the explanations he gives, and he regards them as a summary of the best knowledge available *de rerum natura.* In like manner, I humbly offer my observations as sensibles in Dark Knowledge, in Way of Opinion, upon a *likely* interpretation of duty in anæsthesia, since that science, called Ethic, implies a sense of the responsible OUGHT in man.

The many duties prescribed for anæsthesia are consecutive and interdependent. From the entire concatenation of them, in careful perspective, I should like to emphasize the advantages to be derived from the assiduous dissemination of knowledge concerning anæsthesia. We ought to feel bound to study the subject in order to apply our wisdom to the service of humanity, and to teach and train those who are desirous of learn-

*Read, by invitation, at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, September 17, 1941, Grand Rapids, Michigan.

†Translation: "The principal thing done, therefore, by those very devotees of the pursuits of learning and science is to apply their own practical wisdom and insight to the service of humanity."

ing. At long last some of our medical schools have begun to pay more than a little attention to the teaching of anæsthesia, indeed, a few of them already have established departments of anæsthesia, in each instance increasing the number of lectures, the laboratory periods and the hours spent taking an active part in clinical anæsthesia. It is remarkable how much satisfaction this improvement has brought to the medical student; in fact, it is he who has caused it to come about by persistently requesting better opportunities to learn anæsthesia. Again those universities which have created departments of anæsthesia have afforded their anæsthetists occasions to teach, more than hitherto, the undergraduate as well as the graduate who wants to be a specialist. The fulfilment of this duty redounds to the anæsthetist's credit in that as one teaches, one learns, or, at least, has the acuities of his subject kept constantly before him. It is not inapposite to the thought to quote the immortal Walt Whitman, from "A Song of the Rolling Earth" in his *Leaves of Grass:*

The song is to the singer, and comes back most to him,
The teaching is to the teacher, and comes back most to him,

. . . . . .

. . . . . .

The oration is to the orator, the acting is to the actor and actress not to the audience,
And no man understands any greatness or goodness but his own, or the indication of his own.

**Furthermore, when the university sets up a department of anæsthesia, it gives the personnel cause to do investigative work, to divide time between the laboratory and the clinic, to coördinate findings from the two places, and to collaborate with members of the school's other departments. With such increasing concerted effort, anæsthesia will improve ineffably, and it may not be too much of an extravagance to say that to advance the teaching of anæsthesia is portentously our obligation in the matter at the present time. Let us feel with Matthew Arnold that while we cannot change ideas without making a good many people uncomfortable, we must more and more become conscious of having something to do and the resolution to do it. In due deference, a challenge is placed before those who occupy the high places of medical education.**

**Fear**

At the risk of seeming unduly repetitious, I am going to reiterate some of the arguments which I have developed in other papers, first, because it is hardly fair to assume that all of you are familiar with them, secondly, because it has become apparent that they are in certain respects in need of further elucidation. To begin with, let us consider the problem of fear. Thoroughly to dispel fear is always the physician's duty, and especially is this true when he recommends an operation. But to drive away anxiety ought to be a supreme obligation more particularly prior to the performance of regional anæsthesia. Arthur E. Hertzler, in *The Horse and Buggy Doctor,* says:

"As a matter of fact, fear is too little regarded as an adverse influence in the outcome of an operation. It matters but little to what the fear may be due. The average groom, when being led to the altar, is in no condition to undergo a major operation, particularly if he has been there before. Even today, I refuse to operate on a frightened patient. I have seen, too often, patients who stated that they would not recover, who proceeded to make good their prediction. Some of these cases did not show the cause of death, even at autopsy. I believe they were actually and literally scared to death."

I am convinced that many will agree with this author. As suggestion has been defined as an "attenuated hypnosis," it should be permissible, nay more, indeed commendable, or even imperative, therefore, to give assurance, to inspire confidence and to gain reliance by certain affectations, conceived in sincerity, of gesture, voice and word on the part of those in attendance, so *the throes of fear to swage.* In such manner the patient may be brought to just dependence, and in such simple trusting faith will be more amenable to the action of sedative drugs, which in turn will enhance abandonment. Thus your patient is ready to be taken, as it were, to the drowsy house of Sleep. In the soothing words of Ovid:

"Near the land of the Cimmerians there is a deep recess within a hollow mountain, the home and chamber of sluggish Sleep. Phœbus can never enter there with his rising, noontide, or setting rays. . . . There is no sound of branches rustling in the breeze, no clamorous tongues of men. There mute silence dwells. But from the bottom of the cave there flows the stream of Lethe, whose waves, gently murmuring over the gravel bed, invite slumber. Before the cavern's entrance

abundant poppies bloom and countless herbs, from whose juices dewy night distils sleep and spreads its influence over the darkened lands."[12]

May this metaphor strengthen the doctrine which I have been propounding! namely, that relatively large quantities of sedative drugs ought to be used, especially in regional anæsthesia. But I do not believe in having fixed doses and set methods of administration for all cases. Every manifestation of life is unique, unpredictable, irrepeatable. No two minds, and no two cerebral cortices, can ever be identical. *Quot homines, tot sententiæ.* (So many men, so many minds.) Where there is no common measure, there is no possibility of law. It seems better to consider each subject individually, and, in order adequately to obfuscate the mental faculties, it seems suitable to give somewhat small but repeated doses of sedative drugs sufficiently to produce a condition of absolute indifference and amnesia. By so doing, I have found that there is much less shock, much less circulatory disturbance, than there used to be, and, at least in spinal anæsthesia, hardly ever any nausea. Thus, it may be said of the services attached to the preparation of a patient for anæsthesia, that it is of paramount importance properly to prescind fear and effectively to obtund thought.

### Selections and Methods

Among the earlier precepts in anæsthesia are those which belong to the selection of the anæsthetic agents and the methods of their administration. The best choice is made when the physician, the surgeon and the anæsthetist discuss the general physiological state of the patient, as well as the surgical requirements of the case. Thy physician's opinion, the views of the patient's doctor, are of inestimable value for the particular reason that he knows his patient, he knows something of the episodes in the life of the individual, some of which may be of a psychological nature. He helps profoundly to decide the procedure. With polarity of mind these three medical philosophers, after considering the nature of the operation that must be done and the character of any additional disability, will choose the drugs to be used and the manner of their employment, while being fully aware of the harmful effects which they are capable of producing. After decision is made the duties become, in effect, esoteric to the anæsthetist—they are essentially his responsibility. Whatever the course determined, whether it be by methods regional or general, and irrespective of what drugs, or mixtures of them, are used; he will not only do his work with circumspection but will pay momentary attention to the patient's condition in observing the character of the breathing, as well as the state of the circulation. The value of such observations is increased by the filling in of a record showing the blood pressure, the pulse rate, the rate of respiration and notes on the progress of the case, including mention of changes in technique and of other drugs administered. In the light of our present knowledge, it seems rational that one of three procedures will have been chosen, namely: regional anæsthesia, that is, local or spinal, or one of the various forms of "block" anæsthesia; general anæsthesia by inhalation or intravenously; or a combination of regional and general. For the first, procaine, pontocaine and nupercaine are the drugs in favour. Virtually, they cause little, if any, impediment to the vital processes; as a consequence, their employment ought to be encouraged. On account of technical difficulties, however, local infiltration, field block, and the different forms of nerve block are found to be tedious and time consuming and therefore have not gained much support. Spinal anæsthesia, on the other hand, has become more particularly a part of the duties of the anæsthetist, with the result that, through increased individual experience, the dangers are almost negligible. The advantages of spinal anæsthesia are very great, especially on account of the muscular relaxation and the excellent recovery, and it may be pointed out that, with the exception of some blood dilution, the deleterious effects which occur all too often in general anæsthesia do not take place from spinal anæsthesia. It would seem that spinal anæsthesia is contra-indicated only when, for one reason or another, the fall of blood pressure, which it frequently causes, is to be feared, for instance, in advanced cardio-vascular disease. In a general way, I would suggest that regional anæsthesia ought to be given wider application so long as preliminary sedation is to be made complete.

Professor Albert Guérard, of Stanford University, has said that as Classical consistency conforms with common beliefs and with tradition: that alone is true which has been held consistently,

that is to say at all times, everywhere, and by everybody: *quod semper, quod ubique, quod ab omnibus;* and as Romanticism is revolt: against arbitrary rules, against emasculated taste, against the weariness of copying forever the same impeccable models; let us rather hold a middle course in seeing that Classicism is restraint while Romanticism is urge. In simile, let this cause us to realize that although, in some quarters, ether is being relegated increasingly to disuse, it will be a long time before it is utterly abrogated in anæsthesia. However, for the production of general anæsthesia, I know of no better combination than avertin per rectum to the patient in bed, and a mixture of cyclopropane, nitrogen and oxygen administered in the operating room. Instead of avertin, one of the shorter acting barbiturates, such as pentothal, may be given into a vein just before the cyclopropane mixture. Indeed, this is an excellent practice and is advocated by Guedel, principally for Cæsarean section.

There are certain contingencies whereby there may be good reason against the use of pre-anæsthetic drugs. Then for psychological purposes, general anæsthesia, produced by one of the gases, may be combined with whatever form of regional anæsthesia is chosen; then the one is additive to and intensifies the power of the other; then, too, much less of the gases is required. There are several who are very much in favour of such a combination.

### Analeptics, Oxygen and Fluids

Attention may now be drawn to three more of the offices in anæsthesia. They concern the use of analeptics, that of fluids, and the giving of oxygen. I am strongly of the opinion that analeptics should not be used routinely, for as no two nervous systems are identical, there is no common measure. Remember the paternal council of Phœbus to Phæthon—"if thou canst at least obey these thy father's warnings, spare the lash, my boy, and more strongly use the reins." Analeptics have a way of stimulating the central nervous system and reversing the effects of sedatives, as has been shown by various authors and more recently demonstrated in the Department of Pharmacology of McGill University.[14] Melville[11] has found that when the pressor principle of posterior pituitary extract is mixed with ephedrine and administered to experimentally shocked dogs, the result is more effective than larger individual quantities of these drugs in restoring blood pressure and respiration and in abolishing general collapse. The united action of these chemical entities constitutes perhaps the best known example of synergism in pharmacology. In Montreal, some of us[6] have had considerable clinical experience with these two drugs in spinal anæsthesia for thoracic surgery, wherein we have found that they do not seem to be needed more often than in 30 per cent of cases. This figure should cause those who give analeptic drugs routinely to change their practice and thoughtfully to avoid undoing, at least in part, that which was deliberately done with good reason, namely, the dissipation of fear. Our criterion for the employment of this analeptic mixture is a marked fall in blood pressure accompanied by a rise in pulse rate. Again, the fact that analeptics were not needed in so many of our cases tends to prove the statement made before in favour of complete sedation, particularly "that there is much less shock, much less circulatory disturbance, than there used to be, and, at least in spinal anæsthesia, hardly ever any nausea." This form of stimulation is seldom needed in general anæsthesia, in fact, with cyclopropane, sympathetico-mimetic drugs are contra-indicated.

Fluids are given in connection with anæsthesia, chiefly for the bulk they supply to the circulation and on account of their constituents. It is nearly always wise to use them before operation in whatever form seems suitable. They are to be administered very frequently during operation, as a rule, directly into a vein. They are very often needed during the early days after operation. Owing to the fall in blood pressure, usually seen in spinal anæsthesia, it is well to start the intravenous administration of glucose-saline as soon as the anæsthetic has been given. The salt tends to maintain the volume of the circulation. Solutions of glucose alone pass through the kidney too rapidly, but when glucose is accompanied by salt, it is held long enough for its usefulness as a food to be made manifest especially in the brain where metabolism is at a low ebb owing to the sluggish blood supply. Conditions are different in general anæsthesia, when usually there is blood concentration and such disturbance in metabolism that hyperglycæmia is present. It should be preferable, therefore, to add to the blood stream only the plain physiological saline solu-

tion. This does not mean that glucose solutions are not to be used before operation and after complete recovery from anæsthesia; on the contrary, such employment is highly commendable. It has been shown that the acidosis of general anæsthesia is a true acidosis.[7] It is known that this acidosis may be lessened by building up the glycogen reserves of the body before a surgical operation. It has been shown, too, that the acidosis of anæsthesia may be reduced considerably by the rectal administration of copious quantities of a specially balanced hypotonic alkaline sodium and potassium phosphate solution immediately after operation.[3] This bulky, watery, and alkaline solution not only obviates the acidosis, but decreases the blood concentration; and also ameliorates the patient's condition during recovery by virtue of its potassium ions, said to be the most stimulating of all to any *depressed* living thing, especially when the phosphate anion is present and when the medium is alkaline. A trend it is, nay more, a duty it ought to be, in anæsthesia to allow fluids to be diffused more freely.

And now, with regard to the use of oxygen, I seriously believe that we should feel ourselves compelled to employ this vitally important component of the all-ambient air almost always in anæsthesia. The dangers of anoxia have been demonstrated frequently and it has been shown that they can be made nugatory by oxygen. Quastel[13] points out that a constant supply of oxygen to the brain is of greater importance than an interrupted rich supply. This seems related to the fact that the brain is very restricted in its choice of metabolites for respiratory purposes. It demands a minimum (at least) concentration of glucose and a constant supply of oxygen. The administration of oxygen during, and for some little time after, anæsthesia supplies the blood and tissues with their requirements at a time when obstruction to breathing may occur, or, as in the case of spinal anæsthesia, when the oxygen-carrying power of the blood is lowered; and preventing or lessening what might be serious changes in the vital functions. A careful pondering of the duties connected with the use of oxygen and the giving of fluids in anæsthesia leads one readily to realize that there are several others which may not be considered at this time.

### Obstetrical Pain

As it is difficult to withstand the temptation, I must interject a few remarks on the relief of pain in obstetrics. It is easy to see the advantages which may be had from the prudent use of one or more of the many drugs variously advocated. But, alas! some over-zealous physicians have overdone this good thing and have given palpably specious assurances of an Elysian state in place of the cark and care of childbirth. Small wonder it is that woman has become urgent in her demands for complete relief from suffering. Although the employment of sedatives in obstetrics has exceeded the proper limit, it does not mean that we must cease to use some of them in such doses, and so judiciously, as to preclude their toxic effects on the mother or fetus; as to avoid inhibition of uterine contractions; and it does not mean that we must cease to use some of them sufficiently to produce some degree of amnesia without excitement. It may be said, with justification, that any of the drugs which are being employed today may be allowed from dependable hands, but it becomes our bounden duty, in so far as we are dealing with two lives, most carefully to avoid rule-of-thumb methods, most thoughtfully to choose those drugs which are least likely to do harm. I have come seriously to the conclusion that the very best present procedure[4] for the relief of pain in obstetrics is the early and repeated administration of pentothal acid by mouth, accompanied by one or two doses of scopolamine during the beginning of labour, followed by the intermittent administration of nitrous oxide with an abundance of oxygen when the uterine contractions have increased, and this in turn by the production of full anæsthesia with cyclopropane. For those who are less experienced, vinyl ether is highly recommended to produce analgesia and anæsthesia following the use of pentothal. We should not strive to produce complete amnesia for the entire period of labour, for just as a woman does not want to forget the harmonious contentment of life forming within her, so too, concerning her travail, she wants to remember, at least nebulously, something of the actual fruition. In other words, she wants to perceive, but, laudably, is willing to be freed of apperception.

There is, *de officiis* in anæsthesia, another sort, assumed by those who are imbued with the urge of inquiry. Duty of this category is engendered in the laboratory, whence the almost ascetic anchoret sends forth his useful findings. He, of monastic thought and erudition, will now

and then leave his ivory tower gratuitously to show the fruits of his doughty endeavour. It is he who teaches us to know that anæsthesia is apt to be accompanied by interferences with external respiration, as well as by disturbances to internal respiration,[10] teaches us to know the significant changes which may occur in the blood as a result of anæsthesia, for instance in its fluid state[1,2] and in its acid-base balance;[15] in the liver,[5] its function and structure; in the kidney,[16] its activities and appearance. It is he who teaches the anæsthetist to know well the necessity of maintaining good oxygenation during anæsthesia, as well as how to lessen the deleterious effects of anæsthetics and to alleviate them when they occur. It would appear as though these investigators had heeded the principle of William Morris' version of the Platonic paradox that artists should be workmen, and workmen artists. Anæsthetists ought to observe this fundamental assumption and remember, in the words of Henry James, that "the best things come, as a general thing, from the talents that are members of a group; every man works better when he has companions working in the same line, and yielding the stimulus of suggestion, comparison, emulation."

Finally, some relevancy may be seen in these lines from *The Testament of Beauty*—

I halt not then nor stumble at how the duteous call
was gotten in course of nature, rather it lieth to show
how it was after-shapen in man from physical
to moral ends, and came no longer only to affirm
but sometimes even to oppose the bidding of instinct,
positing beside OUGHT the equivalent OUGHT NOTS,
the stern forbiddances of those tables of stone
that Moses fetch'd out of the thunder of Sinai.[8]

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# Observations on the Use of Glasses*


By Alfred Cowan, M.D.
Philadelphia, Pennsylvania

ALFRED COWAN, M.D.

*M.D., Medico Chirurgical College, Philadelphia, 1907. At present Professor of Ophthalmic Optics, Graduate School of Medicine, University of Pennsylvania; Ophthalmologist to Philadelphia General Hospital; Supervising Ophthalmologist, Department of Public Assistance, Commonwealth of Pennsylvania; Consulting Ophthalmologist, Council for the Blind, Commonwealth of Pennsylvania; Ophthalmologist to Pennsylvania Working Home for Blind Men, Philadelphia; Author of "An Introductory Course in Ophthalmic Optics" and of "Refraction of the Eye," and a number of articles on ophthalmological subjects; a member of the American Ophthalmological Society; American Academy of Ophthalmology and Otolaryngology; College of Physicians, Philadelphia, and others.*


ALTHOUGH spectacle lenses have been used for hundreds of years, it is only in recent times that they have been prescribed, designed and ground with anything near the exactness that we now consider essential. Neither were glasses so generally used by people in every walk of life until comparatively recent times and it is only natural, therefore, that most every one of intelligence is more or less eye conscious. In spite of this the ignorance with regard to the use of glasses and the purposes for which they are worn, that exists in the mind of the average layman, is disturbing. Many really educated persons still do not know that ophthalmology is a branch of medicine and they are confused by the meaning of the terms ophthalmologist, oculist, optometrist and optician. Ophthalmologists are, of course, more acutely aware of this than the general practitioners and many of us feel that it is the duty of every physician to be able and willing to explain away many of the misconceptions in the mind of the layman concerning these

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matters and also with regard to the use and purpose of glasses. This presentation is offered with the hope that it will suggest to physicians in general a logical way of describing to their patients certain physiologic optical principles—not only why and when glasses should be worn but when they need not or should not be worn.

### Mechanics of Vision

The eye is an optical instrument for the purpose of forming images of outside objects. Its dioptric system is composed of the cornea, the aqueous and the crystalline lens. These media are of a clearness and transparency not found in any other tissue of the body. It is of primary importance in seeing that the image formed by the dioptric system be clearly defined and focused exactly on the surface of the layer of rods and cones of the retina. Projected out into space this optical image corresponds to the object and we recognize the various forms, sizes, colors, positions and motions of objects which lie not only within reach, but also of those at inaccessible distances.

**Imagine how nice and sharp this tiny picture must be when, for example, the whole figure of a six-foot man at a distance of eighty feet forms an image of less than 1/20 inch (1.25 millimeters) in length. The diameter of the image of the man's face is about 1/150 inch (1/6 millimeter), yet the eye is so sensitive that even the man's nose, mouth, eyes and expression are recognized distinctly in this exquisite miniature. In this tiny inverted picture the mind can instantly depict innumerable shades of light and color, judge depth and distance and detect the slightest movement of an object. The extremely delicate sensitivity of the retina might be appreciated by the fact that two points can be seen as separate when their images are separated on the retina by a distance of less than .003 millimeter. It is even more wonderful that we do not sense at all the image inside the eye. Instead, the mind erects and projects it back again into space so that the objects which go to form the picture seem to lie out there where they really belong, entirely separate from the body and in their actual size and direction. In the natural consciousness of the spectator the retina and the image have no existence whatever.**

No less remarkable is the ability of the eye, by means of its mechanism of accommodation, to change almost instantly the focal power and to receive those impressions for objects which are included in a region extending from a distance of a few inches from the eye all the way out to infinity. No artificial optical instrument can be compared with the living, dynamic eye in its ability to choose its focal plane by a change in the shape of the crystalline lens.

The eye also has in the iris with its opening, the pupil, a photostat by which light can be utilized over a tremendous range of intensities, varying from less than a single foot candle up to 10,000 or more foot candles.

Even the aberrations of the optical system of the eye—and the eye is not free from the chromatic and monochromatic aberrations—that are generally considered serious in an artificial optical instrument, are physiologically modified and mentally interpreted to such an extent that they do not interfere with distinctness of vision.

All this, of course, applies to a healthy eye with clear media and with its system of refracting surfaces so constituted that the rays of light which enter the eye will be focused to form an image exactly on the surface of the layer of rods and cones of the retina. As an illustration of how exactly the focal distance of the optical system of the eye must be adjusted take, for example, a case of myopia, nearsightedness, of 3 diopters. In this eye the retinal image of a distant object will be so blurred that the visual acuity will be reduced to about 3/60, 10/200, or about 1/20 of the visual acuity obtained by the normal eye. Yet this myopic eye is only 1 millimeter longer than it should be. Almost the same reasoning can be applied to the hypermetropic or farsighted eye which is 1 millimeter too short, provided the accommodation is completely relaxed. And this is only a rough example. Most persons can easily appreciate a material difference in visual acuity when the error amounts to 1/12 millimeter, that is an eye which is either too long or too short 1/300 of an inch. It is not uncommon in practice to correct such, or even smaller, errors of refraction. The slightest change in the curvature of the surfaces of the cornea or lens will make a ma-

terial change in the total refraction of the eye. A difference of 1/125 of an inch in the radius of curvature of the cornea can make a change of a whole diopter.

The standard set up by Risley for comfortable binocular vision is found in two healthy emmetropic eyes with normal sharpness of vision, a physiologic range of accommodation and a proper binocular balance; that is to say, emmetropia, or the ability to focus rays of light from a distant object without effort of the accommodation, and with 6/6, 20/20, visual acuity; a range of accommodation corresponding to the age of the individual, and the power to converge both eyes equally and normally.

**If such ideal exists there will certainly be no ocular discomfort and although a considerable departure from the standard may frequently be found in persons who seem to suffer no inconvenience it is remarkable how, in many instances, the smallest anomaly of refraction, accommodation or muscle balance may produce distressing symptoms of eye strain. But if there is no material error glasses will make an artificial one. There is no such thing as "rest glasses" for a pair of emmetropic eyes. The only glasses that can be called rest glasses are those which properly correct some error of refraction.**

In view of the almost mathematic exactness of the refractive media, the curvature of their surfaces and the relationship of their distances from one another and from the retina which constitute emmetropia, the great number of persons with practically normal refraction not only in one, but in both eyes, is something at which to marvel.

Generally speaking, in every anomaly of refraction the retinal image of an object at 20 feet or more distance is focused in front of or behind the retina because the eyeball is either too short or too long for its optical system; in hypermetropia it lies behind the retina because the eyeball is too short; in myopia it lies in front of the retina because the eyeball is too long and in astigmatism, because the refractive power of the optical system of the eye varies in different meridians, the image is distorted and lies at varying distances in different meridians. In any of these instances a blurred image is received at the retina.

### The Use of Lenses

For every eye there is a certain place at which, if an object be situated, a clear image will be seen. In glasses we have the means of correcting every ordinary error of refraction and weakness of accommodation. With the proper correcting lenses an eye is made artificially emmetropic.

Lenses correct errors of refraction by placing the object, optically, at the distance from the eye where it can be most distinctly seen. They do this by so changing the direction of the light that enters the eye that the rays apparently come from the exact distance for which the eye is adapted. For example, the myopic or nearsighted eye can see objects only when they lie at a short distance in front of the eye. Distant objects are indistinct. The proper concave lens will cause the light rays from a distant object to spread out, to diverge, and their direction on entering the eye will be such that they appear to come from an object close by. The reverse is true with regard to hypermetropia, the farsighted eye. The latter is adapted for seeing objects beyond infinity, virtually behind the eye. The proper correcting lens for hypermetropia will cause the rays of light from a distant object to converge and tend to meet in a point behind the eye. They will be made to enter the eye as if from the point beyond infinity, the distance for which the farsighted eye is adapted, and the object, therefore, is virtually placed behind the eye.

### False Conceptions

**Here it can be seen how, theoretically, glasses which correct a certain refractive error can be neither too strong nor too weak in the sense that the stronger they are the better the person is enabled to see—that glasses can be made to increase the visual acuity above the normal merely by making them strong. Myopic persons, particularly, believe this when given clear vision with correcting lenses for the first time. Frequently they are afraid the glasses which give only normal vision are too strong. Often they feel that if they wear them constantly that they will learn to depend on them to the extent that they will be unable to**

**go without them, that once they start to wear glasses they will need progressively stronger ones. As if this could possibly have any bearing whatever on the refractive error itself.**

The physician may hear such expressions as these: "My eyes were ruined by working in bright light (poor light) and ever since then I have had to wear glasses," or "I started to wear glasses when I went to high school and I have become so accustomed to them that now I cannot go without them."

**Refractive errors cannot be acquired by excessive close work, by poor lighting, by too much light, by certain types of work, or by trying on one's grandmother's glasses. Any of these, however, may bring out an error which already exists or make manifest by symptoms of eye strain a small refractive error which would be negligible under ordinary working conditions. It is true that faulty lighting can affect the eyes; for example, miner's nystagmus which results from working under very poor illumination, or photophthalmia from too intense illumination; but the condition produced in such instances is not a refractive error that can be corrected with lenses, it is a disease.**

On the other hand, many patients fear they will eventually lose their sight entirely if they do not wear their glasses constantly. No one, no matter how much he needs glasses, must wear them constantly in order to save his sight. In no case will it make any difference in the refractive error whether or not the patient wears glasses. A simple refractive error is not a disease, nor does it depend on any disease of the retina or other parts of the visual apparatus. Many persons believe that serious diseases of the eye are often the result of poor glasses. Even some physicians still believe that cataracts result from eye strain.

But neither will glasses cure a disease. We know that at least one-third of all patients who consult an ophthalmologist show evidence of some pathologic condition, either local or general. Many of these persons believe that all that is needed is a good pair of glasses when, as a matter of fact, they require medical treatment. Many persons with incipient glaucoma, chronic uveitis or other pathologic conditions, which might eventually lead to blindness, postpone proper treatment for years because of ignorant or unscrupulous prescribers of glasses. Every person who complains of ocular symptoms, no matter how mild they may seem, should have the benefit of a thorough ophthalmologic examination by a doctor of medicine trained in ophthalmology.

The purpose of glasses in any degree of myopia and in ordinary and high degrees of astigmatism, is to improve the visual acuity. There is no physiologic means of improving the visual acuity for distant objects in the presence of these types of refractive errors. Young persons with ordinary degrees of hypermetropia and low grade astigmatism, however, can obtain distinct vision at all distances by exercising the accommodation. Generally, in such cases lenses do not improve visual acuity for distance, they may even seem to decrease it. But in such conditions the constant effort of the accommodation that is necessary in order to obtain distinct vision at all distances, results in symptoms of eye strain—the condition we call accommodative asthenopia.

### Accommodation

We should remember that the power of accommodation, the ability of the optical system of the eye to increase its power, decreases as age advances. The diminution of the accommodation as the age of a person increases, is so generally the same for all that it is often possible to determine the age of a person by the measure of his accommodation.

Now an eye at rest, that is one with the accommodation completely relaxed, is adapted to the greatest distance at which it can see distinctly. During its greatest possible accommodation it is adapted to the nearest point at which objects can be clearly seen. The greater the power of accommodation, therefore, the closer to the eye can objects be distinctly seen. The power of accommodation, at the age of 10, is 14 diopters. This child, if emmetropic, can see objects distinctly from a great distance up to a point as close as 2¾ inches from the eye; at the age of 30, his accommodation has already decreased to 7 diopters and the nearest point of distinct vision will be 5½ inches; and so on, until at the age of 60 the nearest point at which distinct vision can be obtained with maximum accommodation

is about 40 inches from the eye. Long before this age, with perfectly normal eyes, he will have been unable to see ordinary type at the usual reading distance without the aid of glasses.

In this period, the period of presbyopia or so-called old sight, the emmetropic person will need glasses for close work only, the person with any type of refractive error will need glasses for near in addition to his distance lenses. For young persons with good accommodation single vision glasses will suffice for all purposes. The presbyopic person with inadequate accommodation must wear two pairs of glasses, one pair for distance and a different pair for near. For these persons the best all-purpose glasses will be bifocals—that is, glasses in which there is a distance portion above with a different reading portion below, both in the same glass. Bifocals are a substitute for two separate pairs of glasses. They are one of the greatest of modern conveniences.

Consider a person with hypermetropia—farsightedness—of 2 diopters and suppose that the condition remains unchanged throughout life. At the age of 10, with 14 diopters of accommodation, he will be able to overcome his error for distance and have 12 diopters in reserve. For close work, at a distance of 13 inches, which requires 3 diopters additional accommodation, he will still have 9 diopters of accommodation in reserve. This child, under ordinary conditions, should not be bothered with glasses. At the age of 20 with 10 diopters of accommodation he will have a reserve of 8 diopters for distance vision and a reserve of 5 diopters for near. He may, at this time, have symptoms of eye strain for sustained close work. His power of accommodation is more than sufficient to correct his error for both distance and near vision, but its extra exertion may cause discomfort. However, the constant exercise of the accommodation has become a habit which he cannot give up even when, with the proper correcting glass, it is no longer necessary. Nearly always he will reject convex glasses for distance vision. Nothing but a cycloplegic will permit determination of the exact refractive error in such cases. It might be stated here that any young person, up to 40 or 45 years of age, who has the ability, will use his accommodation to an undue extent, regardless of the type of refractive error. In this way he can mask his true refractive error, or change the amount materially. This is the reason for the use of such drugs as atropine and homatropine. In many persons, only by paralysis of the accommodation with a cycloplegic can we reach the degree of exactitude required in the treatment of these conditions.

Continuing with our hypothetical case, we find him at the age of 40 years with a power of accommodation reduced to 4.50 diopters. Even at a distance now, after using 2 diopters of accommodation to correct his error, he will have a reserve of only 2.50 diopters. By exercising his accommodation to the utmost he will be barely able to see distinctly at a distance of 16 inches from the eye. This, of course, cannot be sustained for any length of time; he will give up entirely and be unable to do any ordinary close work without glasses. At this time he will have symptoms of eyestrain even for distance. This is the patient who thinks his eyes have become poor only because of increasing age, when, as a matter of fact, he is no longer, able, physiologically, to overcome an error which has existed all his life.

At about the age of 40 years the first signs of presbyopia, or old sight, make themselves manifest. It is at this time, in emmetropia, hypermetropia and low grade myopia, that vision at short distances from the eye sometimes becomes difficult. At the commencement of presbyopia a person may still have considerable accommodation, but without sufficient reserve, prolonged close work is intolerable. It is a mistake to state that presbyopia begins at any certain age; it depends on the standards for distinct vision and the kind of near work required by each individual. It may not become manifest until 46 or 48 years of age. But every normal person, by the time he reaches the age of 50, must use glasses for ordinary close work. Persons with a certain degree of myopia, however, can see clearly at the reading distance without glasses throughout life. These are the ones of whom their children and grandchildren boast that they are still able to read fine type even at an advanced old age. This is possible only in the case of myopia, never in persons with normal eyes or with low refractive error.

### Prevention

**Good visual acuity with comfort requires good illumination. This means that both the**

**quality and distribution of the light must be suitable. The picture must be properly illuminated. Such factors as shadows, highlights, backgrounds, proper surroundings and even a certain amount of glare sometimes, which are necessary for good visual acuity, depend on proper lighting. The light may be too faint to produce a sensation, or it can be so intensely brilliant as to destroy the distinctness of vision, dazzle the eyes and cause pain. But the adaptability of a healthy eye enables one to see over an exceedingly wide range of different degrees of illumination. A person with normal eyes can work with the dim light of an ordinary candle at a distance of one foot, the amount of light known as a foot candle. The same person is able to see distinctly and with comfort in daylight of a brightness of thousands of foot candles. It is true that even good work can be done under poor illumination, but not only is better vision obtained, it is a proved fact that workers have more power to maintain good vision with less fatigue and greater efficiency under relatively bright intensities of illumination.**

Generally speaking, persons with good eyes are better able to see with poor light than those with defective eyes. Children are able to see well under remarkably low illuminations. With the increase of age there is naturally a gradual lessened transparency of the optical media and older persons, therefore, require more light than young ones; but regardless of age or the ability to see with poor light, no one should be required to work under anything but the best possible lighting conditions; not only to lessen eyestrain, but to conserve the general health. Even with perfect eyes, good light and plenty of it, properly distributed and with glare eliminated as far as possible, is far less fatiguing than the poor artificial lighting we have heretofore considered adequate.

Insufficient, low, flickering light makes it necessary for the eyes to adjust themselves constantly to rapidly changing intensities, which results in fatigue. Discomfort will be caused also by glare or when the light is unevenly distributed. All the disturbances due to faulty illumination are exaggerated in the case of persons with uncorrected errors of refraction—nearsightedness, farsightedness, astigmatism—or in those wearing improperly fitted glasses.

### Tinted Lenses

The use of tinted glasses has increased to such an extent lately that one might be led to believe most people fear their eyes need protection even against good daylight, hence the too general use of sun glasses. Advertisers of variously colored glasses have made every conceivable claim for their products. One can understand how the layman may be led to believe in the miraculous benefits claimed for the use of such glasses, but even ophthalmologists are being duped.

Tinted lenses are essentially protective glasses. Except in certain abnormal conditions in which it is necessary to protect the eyes from ordinary light, they are useful only in the presence of glare—direct or reflected light which is so excessive or misdirected that it is painful or harmful to the eyes. Ordinary sunlight, unless reflected directly into the eyes, is not harmful to healthy, properly corrected eyes. So-called sun glasses should be made to serve one purpose and that is to reduce the amount of direct or reflected light on those occasions when the intensity is so great that it is painful or interferes with vision. They are not to be used constantly out of doors. To serve the purpose of sun glasses they must be dark enough to absorb about 75 per cent of the light. The lightly tinted ones are no better than ordinary clear glass. No tinted glass should be worn indoors, certainly never at night. They are dangerous for night driving. The glare of an automobile headlight is due to the contrast with the surrounding darkness and dark glasses cannot change that; they will dim the headlight, but they also make the surroundings darker. The sense of eye fatigue after day driving is more often due to uncorrected or improperly corrected errors of refraction than to the bright light. It is certain that sun glasses cannot be used as substitutes for corrective lenses in the case of a refractive error.

### Conclusion

In conclusion, I hope I have made it clear that glasses should never be prescribed for any person who can do without them. Never should they be more of a nuisance than a benefit. They can serve only one or more of three purposes: improve visual acuity, relieve eyestrain, allow comfortable binocular vision.

## DO NOT FORGET YOUR POSTGRADUATE PROGRAM FOR 1942*

### Intramural Courses

Allergy
Anatomy†
Diseases of Blood and Blood-forming Organs
Diseases of Genito-urinary Tract
Diseases of the Heart
Electrocardiographic Diagnosis
Gastroenterology
Gynecology and Obstetrics
Internal Medicine (Summer Session Course)
Laboratory Technique
Neurology and Psychiatry
Nutritional Endocrine Problems
Ophthalmology and Otolargyngology
Pathology
- Special Pathology of Neoplasms
- Pathology of Female Genito-urinary Organs
- Special Pathology of Eye
- Special Pathology of the Ear, Nose and Throat

Pediatrics
Proctology
Roentgenology

### Extramural Courses

Ann Arbor
Bay City
Cadillac
Flint
Grand Rapids
Kalamazoo
Lansing
Mt. Clemens
Sault Ste. Marie, Marquette, Houghton, Ironwood and Powers.

The Announcement of Courses will be mailed to all members in February, and further details will appear in the March issue of The Journal. Requests should be addressed to the Department of Postgraduate Medicine, 1313 E. Ann Street, Ann Arbor, Michigan.

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*The Committee on Postgraduate Medicine feels that the needs of our profession due to the emergency require even an expansion of postgraduate opportunities. At the same time all must realize that shortage in teaching personnel may require a sharp curtailment. Ample notice will be given either through The Journal or by personal communication should omissions or changes become necessary.

†The course in Anatomy will be given on Thursdays throughout the second semester, beginning February 12, at 1:00 p.m., at the University of Michigan.

# POST-GRADUATE PROGRAM

*President's*

*Page*

THE program of the Committee on Post-graduate Education becomes of even greater importance on account of the entry of our nation into the World War. Most of our younger members will be on active service, and many of our elder physicians will assume burdens which they had hoped to lay aside. Mindful of the new problems which the war has brought, the committee has reshaped and extended the program to attune it to present conditions.

The latest geographical extension has been made possible through an appropriation by The Council of the State Society which will permit giving the courses at five centers in the Upper Peninsula, probably during the latter part of May.

Pursuant to the report of the Post-graduate Committee and the action of the House of Delegates, The Council has taken steps toward the establishment of a trust fund to be devoted entirely to the development of the Post-graduate Medical Program. This action being so obviously in the public interest, it is believed that it will be a stimulus to other interested agencies in developing a fund which may in time support an even greater program in this state.

Henry R Carstens

President, Michigan State Medical Society

# EDITORIAL

## NO MATTER WHAT THE COST

■ Our President, in his report to Congress on the state of the nation, emphatically declared that we must win this war "no matter what the cost." This is the type of leadership which Americans understand and will support.

The Surgeon of the Sixth Corps Area Headquarters in Chicago sent the following message to the Medical Preparedness Committee of the Michigan State Medical Society, December 18, 1941: "* * * by July 1, 1942, the Army and Navy will need a total of 18,800 medical officers * * *."

Every citizen of the United States will have to pay and sacrifice to win this war. Each will mourn a friend or a loved one. The administration and the representatives of the people will sooner or later have to nullify political friendships and enmities. The affluent man will have to give up his luxuries; luxuries which he may feel are necessities. The man with high principles must subvert some of his ideals. The farmer must relinquish some of his "independence" and the industrial worker, some of his "rights."

To the physician the phrase, "no matter what the cost," has an ironic significance. Scarcely a day goes by without a father or mother saying, "Doctor, do everything you can for my child. I don't care what it costs." In most instances, when the case is finished and the bill computed, the reaction of the guardian is, "I didn't think it would cost *that* much." Many practitioners have learned that it is better to tell the petitioner from the outset what the cost may be.

**The physician must also pay the price.**

We agree with our President, "no matter what the cost." Perhaps a brief review of the probable disruption of our age-old professional existence would not be remiss. Thousands must take their places in the armed forces; thus in many communities the burden of providing civilian medical care will become a real task. The attending physician will be hard pressed to maintain a high degree of medical care when the multiplicity of calls for aid seems unending. Specialists and retired physicians may be called upon to furnish general medical care for the civilian population. Cooperation on the part of the patient will be necessary in eliminating unnecessary visits and waste of time. Vacations and social activities will be at a minimum even though cherished years of life may be lessened. More and more demands upon physicians' charity will be made—and met. Favorite drugs and instruments may be impossible to obtain and new methods and forms of therapy graciously accepted. Civilian Defense will utilize additional time. Work previously performed by interns and residents in the hospitals will be part of the attending physician's task.

Because of their training in leadership the doctors of medicine will have to assume more of the community burdens, which will be magnified rather than lessened.

These are only a few of the sacrifices, but perhaps it does bring home what the cost will be.

**But we must win this war "no matter what the cost."**

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## ENROLMENT FOR SERVICE IN THE ARMY AND NAVY

■ Last week The Journal published an urgent request to all physicians of the United States to fill out the questionnaire published in that issue and mail it at once to Dr. Sam F. Seeley, Executive Officer of the Procurement and Assignment Service, Washington, D. C., indicating their availability to serve the nation in the present emergency. The response to this call to the medical profession to date has been highly gratifying. The following statement to that effect, with additional instructions, has been received from the Directing Board of the Procurement and Assignment Service:

The response of the physicians of the country to the Procurement and Assignment Service request for enrolment of those now ready for immediate service in the army or the navy is highly gratifying. All names are being processed, and those who meet the present demands of the Surgeon Generals will receive application forms and authority to appear for physical examination at an early date. All who are now ready for immediate duty should forward applications to the Procurement and Assignment Service at once. It is not the intention of the Procurement and Assignment Service to register every physician, dentist and veterinarian at the present time.

Only those available for immediate assignments should register at this time. The physical requirements of all military, governmental, industrial and civil agencies will be published in national and state journals immediately. On the basis of this information every physician, dentist and veterinarian will be able to make a self-appraisal of his physical qualifications. Within a few weeks the Procurement and Assignment Service will mail to all individuals a form on which they will be asked to state their preferences for assignment to all agencies of national defense which require medical, dental and veterinary personnel and for service in communities in public health and other civil categories. In this way every physician, dentist and veterinarian of the country will be able to lend maximum support to the national emergency. In order to meet the expanding needs of the military services, every physician immediately available for duty should mail his application blank to the Procurement and Assignment Service at once. All others will be given an opportunity to volunteer in the near future.

Frank H. Lahey, M.D., Chairman
James E. Paullin, M.D.
Harvey B. Stone, M.D.
Harold S. Diehl, M.D.
C. Willard Camalier, D.D.S.
Sam F. Seeley, Major, M.C., U.S. Army, Executive Officer.
—*The Journal of the A.M.A.*, Jan. 10, 1942.

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**TELEGRAM RE MEDICAL PROCUREMENT**

Chicago, Illinois
January 16, 1942

L. Fernald Foster
2020 Olds Tower, Lansing, Michigan.

I have been officially informed that because of constantly increasing demands on the Procurement and Assignment Service in Washington and because of the growing needs of the Army and Navy for personnel it has become necessary for a new form to replace the form that recently appeared in *The Journal of the American Medical Association* and that it is expected that the new form will be ready for release within the very near future. It is therefore requested that the form which appeared in *The American Medical Association Journal* and which was reproduced by official agencies of State Associations in a number of states be discontinued. It is my understanding that complete information concerning the new form will soon be available. An expression of grateful appreciation of the splendid coöperation and helpful kindnesses of state and county committees and state secretaries is hereby extended in behalf of the American Medical Association and its Committee on Medical Preparedness. The executive officer of the Procurement and Assignment Service has today expressed to me similar appreciation on behalf of his office and of the Procurement and Assignment Service.

Olin West, M.D., *Secretary*
American Medical Association

## COUNCIL ELECTIONS

■ The Council met January 16 at the Statler Hotel in Detroit and after being in almost continuous session from six o'clock Friday night until three o'clock Sunday afternoon reëlected Treasurer William A. Hyland, M.D.; Secretary L. Fernald Foster, M.D.,; and Editor Roy Herbert Holmes, M.D., to their respective offices.

L. Fernald Foster, M.D.
*Secretary*

Wm. Hyland, M.D.
*Treasurer*

Wm. J. Burns
*Executive Secretary*

Roy Herbert Holmes, M.D.
*Editor*

Reports of the various committees and officers, arranging for the budget, discussion of the activities of the various county components together with some miscellaneous business made for a strenuous session.

The Council again unanimously re-appointed Mr. William J. Burns, Executive Secretary for another year. Much of the advancement and coordination of the Michigan State Medical Society organizational activity has been due to his untiring and efficient direction.

This year sees the membership of the state society at the highest level in its history and the amount of professional activity greatest in the existence of the Michigan State Medical Society.

The annual reports of the officers are printed in the Annual Proceedings of The Council elsewhere in this issue and portray the extent of activity of the Michigan State Medical Society.

# ✶ YOU AND YOUR BUSINESS ✶

## TAXES ON ACCOUNTS RECEIVABLE

Physicians, along with a number of other occupational groups, are affected very decidedly by some recent Supreme Court decisions in respect to the status of accounts receivable at the time of death of an individual. In former years, when a physician died, his widow or his estate paid income tax on only that part of his accounts receivable which was collected within the year. Now, however, the receivables are considered as "accrued" income as of the date of death, and income tax is levied in that year on the whole value of the receivables. Of course, the receivables are appraised as to collectible value, but even so, the effect of this decision is to place an unusually heavy tax burden on the estate because the inclusion of the receivables in one year runs the income into the very high surtax brackets. This was true even at last year's surtax rates, but with the new schedule and with newer ones yet to come, this is certain to prove a very difficult problem for estates that are not prepared to meet it. This matter at least merits careful study so that one may plan for the future in such a way as to protect his family from an extraordinary economic shock.

**Buy U. S. Defense Bonds and Savings Stamps**

## GUARANTEEING HOSPITAL STAFF POSITIONS TO DOCTORS IN SERVICE

The Medical Preparedness Committee of the Michigan State Medical Society has invited to the attention of the staffs of all Michigan hospitals and sanatoria listed in the American Medical Directory the need for the establishment of safeguards for doctors of medicine who volunteer in the armed forces of the United States to the end that these doctors' hospital staff positions will be retained upon their discharge from active military duty. A letter was sent on December 29, 1941, to the Chief of Staff of every Michigan Hospital and institution having a staff urging favorable consideration of some policy which would guarantee against the loss of a staff position by an M.D. who joins the Army or Navy. Up to January 12, 1942, the following replies were received:

*Charlevoix*—Charlevoix Hospital, F. F. McMillin, M.D., Chief of Staff—guaranteed.

*Detroit*—St. Joseph's Retreat—Russell T. Costello, M.D., does not apply—small institution.
—Delray General Hospital—C. C. McCormick, M.D., Chief of Staff—guaranteed.
—Detroit Orthopædic Clinic—C. W. Peabody, M.D., Chief of Staff—does not apply.
—East Side General Hospital—G. K. Glasgow, M.D., Chief of Staff—guaranteed.
—Harper—Stewart Hamilton, M.D., Director—guaranteed.
—St. Mary's—Sister Ann, Supt.—guaranteed.
—Wehenkel Sanitarium—A. M. Wehenkel, M.D., guaranteed.

*Grand Rapids*—Ferguson-Droste-Ferguson—Lynn Ferguson, M.D., Director—private institution.
—Butterworth—L. V. Ragsdale, M.D., Supt.—guaranteed.

*Ionia*—State Hospital—P. C. Robertson, M.D., Supt.—guaranteed.

*Ironwood*—Twin City Hospital—guaranteed.

*Lapeer*—State Home & Training School—F. R. Hanna, M.D., Supt.—guaranteed.

*Rochester*—The Haven Sanitarium—Graham Shinnick, Supt.—guaranteed.

*Traverse City*—State Hospital—R. P. Sheets, M.D., Supt.— trying to hold appointments open may be difficult. Also may be impossible to get men to fill the vacancies till after the war, in which case the appointments would be open.

*Ypsilanti*—State Hospital—O. R. Yoder, M.D., Supt.—guaranteed.

Additional replies, as received, will be published in the MSMS JOURNAL from month to month.

**Buy U. S. Defense Bonds and Savings Stamps**

## MEDICO-LEGAL TIPS

"When undertaking operations always obtain written consent to perform such surgical operation as the surgeon's judgment may indicate while operating."

* * *

"Never undertake to treat a fracture without the use of x-ray examination, even though it may be necessary to transport the patient many miles to obtain the services of a roentgenologist."

*The American Journal of Medical Jurisprudence, October, 1938.*

## SAFEGUARDING PRACTICES OF PHYSICIANS IN SERVICE

The MSMS Medical Preparedness Committee recently sent a recommendation to all county medical societies that they give serious thought to reassuring their members who join the armed forces of the United States that physicians who remain behind will take care of the absent members' practice and endeavor to preserve them until their return from the war. "It is the privilege of the physicians who stay at home to take care of the practices of the doctors of medicine who are serving their country away from home," states the Medical Preparedness Committee.

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**Buy U. S. Defense Bonds and Savings Stamps**

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## MICHIGAN'S HOSPITAL AND MEDICAL PAYMENTS PLAN IS ONE YEAR OLD

One year ago, in February, 1941, this Plan was inaugurated to more definitely assure physicians of payment for their services to individuals who are injured in accidents, and who because of their injuries, are indemnified by an insurance carrier. The Plan was adopted by the Michigan State Medical Society, the Michigan Hospital Association, the insurance associations and the independent insurance companies of Michigan. Copies of the reprint explaining this agreement will be sent to any MSMS member upon request.

Savings under the Michigan Hospital and Medical Payments Plan have been reported by a number of physicians. Forms for the convenience of the physician who wishes to take advantage of the Plan have been printed and are available in pads of fifty. Order same from the Secretary, 2020 Olds Tower, Lansing.

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**Buy U. S. Defense Bonds and Savings Stamps**

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## SPECIALTY BOARDS GIVE CREDIT FOR ARMY SERVICE

The Advisory Board for Medical Specialties has recommended to the Specialty Boards that a maximum of one year of credit for total eligibility be allowed to those who serve in the armed forces of the United States. The Advisory Board makes a distinction between training and experience. The training period thus far has not been reduced, but credit of one year for experience has been suggested. In addition, it is urged that physicians be permitted to take the examination at the end of three years of training.

Following the recommendation of the Advisory Board, the various Specialty Boards have taken action conforming with this excellent recommendation. Detailed information may be obtained by writing the Secretary-Treasurer of the Advisory Board, C. Guy Lane, M.D., 416 Marlboro Street, Boston, Massachusetts.

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**Buy U. S. Defense Bonds and Savings Stamps**

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## CIVILIAN DEFENSE IN ENGLAND

A simplified medical program centered around what the English call "Medical Aid Posts" is getting excellent results in England, according to John E. Gordon, M.D., in a recent Ann Arbor talk. Dr. Gordon, who recently returned from an inspection tour of England, stated that physicians and nurses are the third line of home defense at the scene, following the fire squads and the demolition squads. The less medical work done at the scene, the better; the chief duty of the District Medical Officer is to evacuate, which means that transportation is a very important phase of the program. A Medical Aid Post exists in London in every four or five square blocks.

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**Buy U. S. Defense Bonds and Savings Stamps**

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## NATIONAL CONFERENCE ON MEDICAL SERVICE

The sixteenth National Conference on Medical Service will be held at the Palmer House, Chicago, on Sunday, February 15, beginning at 10 a.m. and ending at 4 p.m. This year's program is being devoted primarily to medical preparedness and civilian defense. (See page 163)

This interesting conference is a gold mine of medico-economic information and is attended usually by representatives of most of the states in the Union.

All members of the Michigan State Medical Society are cordially invited to the National Conference. No registration fee.

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**Buy U. S. Defense Bonds and Savings Stamps**

## FIRST SESSION

1. *Roll Call.*—The meeting was called to order by Chairman A. S. Brunk, M.D., in the Hotel Statler, Detroit, at 10:00 a.m., January 17, 1942. All members of The Council were present, as well as President H. R. Carstens, M.D., President Elect H. H. Cummings, M.D., Secretary L. Fernald Foster, M.D., Executive Secretary Wm. J. Burns and Assistant Executive Secretary Lynn Leet.

2. *Minutes.*—The minutes of The Council meeting of September 15-18, and the Executive Committee meetings of October 15, November 13, and December 11, 1941, were approved as published, on motion of Drs. Umphrey-Perkins, carried unanimously.

3. The *Secretary's Annual Report* was read by Doctor Foster, as follows:

### SECRETARY'S ANNUAL REPORT—1941

I herewith submit the report of the Secretary for 1941.

**Membership**

An all-time high was established in membership enrollment in 1941, with 4,621 members, including 43 Emeritus and Honorary members, and 83 Military members. The total paid membership for 1941 was 4,495 with net dues of $46,576.78 accruing to the Society. The number of physicians with unpaid dues at the end of 1941 was 79. The membership tabulation for the years of 1940 and 1941 showing net gains and losses, unpaid dues, and deaths is as follows:

| *1940* | *1941* | *Gain* | *Unpaid* | *Deaths* |
|---|---|---|---|---|
| 4,478 | 4,495 | 17 | 79 | 60 |

A decided *decrease* in paid memberships may be expected in 1942. This will result from the increasing number of doctors of medicine who are entering the armed forces of the country. Members in military service are accorded full membership privileges in the State Society, but are relieved from payment of dues.

MEMBERSHIP RECORD 1941

| | 1940 | 1941 | Military | Loss | Gain | Unpaid | Deaths |
|---|---|---|---|---|---|---|---|
| Allegan | 24 | 23 | 1 | — | — | — | — |
| Alpena-Alcona-Presque Isle | 18 | 20 | | — | 2 | 2 | — |
| Barry | 12 | 14 | | — | 2 | — | — |
| Bay | 75 | 81 | 1 | — | 7 | 1 | 2 |
| Berrien | 64 | 61 | 1 | 2 | — | 2 | 1 |
| Branch | 23 | 20 | 1 | 2 | — | 1 | — |
| Calhoun | 120 | 109 | 3 | 8 | — | 3 | 3 |
| Cass | 14 | 12 | | 2 | — | 2 | — |
| Chippewa-Mackinac | 23 | 18 | | 5 | — | 2 | 1 |
| Clinton | 11 | 12 | | — | 1 | — | — |
| Delta-Schoolcraft | 27 | 27 | | — | — | — | 1 |
| Dickinson-Iron | 22 | 22 | 1 | — | 1 | — | 1 |
| Eaton | 32 | 29 | 1 | 2 | — | — | 1 |
| Genesee | 178 | 183 | 1 | — | 6 | 1 | — |
| Gogebic | 24 | 25 | | — | 1 | — | — |
| Grand Traverse-Leelanau-Benzie | 41 | 41 | | — | — | — | — |
| Gratiot-Isabella-Clare | 37 | 40 | | — | 3 | — | — |
| Hillsdale | 26 | 25 | 1 | — | — | — | — |
| Houghton-Baraga-Keweenaw | 44 | 40 | 1 | 3 | — | 2 | — |
| Huron | | 12 | | — | 1 | — | — |
| Ingham | 143 | 154 | | — | 11 | — | 2 |
| Ionia-Montcalm | 46 | 40 | | 6 | — | 4 | 1 |
| Jackson | 94 | 94 | 1 | — | 1 | — | 4 |
| Kalamazoo | 115 | 118 | 3 | — | 6 | — | 4 |
| Kent | 244 | 243 | 9 | — | 8 | 3 | 4 |
| Lapeer | 15 | 14 | | 1 | — | — | 1 |
| Lenawee | 43 | 45 | 3 | — | 5 | — | 2 |
| Livingston | 21 | 19 | | 2 | — | — | — |
| Luce | 11 | 11 | 1 | — | 1 | — | — |
| Macomb | 43 | 42 | 1 | — | — | — | 2 |
| Manistee | 16 | 14 | | 2 | — | — | — |
| Marquette-Alger | 43 | 42 | | 1 | — | 3 | |
| Mason | 10 | 8 | | 2– | — | 1 | — |
| Mecosta-Osceola | 16 | 15 | 1 | — | — | — | — |
| Medical Society of North Central Counties | 22 | 23 | | — | 1 | 1 | — |
| Menominee | 12 | 13 | | — | 1 | — | — |
| Midland | 16 | 16 | | — | — | — | — |
| Monroe | 35 | 38 | | — | 3– | 1 | 1 |
| Muskegon | 80 | 79 | | 1 | — | — | — |
| Newaygo | 13 | 12 | 1 | — | — | 1 | — |
| Northern Michigan | 37 | 28 | 1 | 8 | — | 5– | 1 |
| Oakland | 143 | 151 | 3 | — | 11 | 1 | 2 |
| Oceana | 12 | 11 | | 1 | — | — | — |
| Ontonagon | 8 | 8 | | — | — | — | — |
| Ottawa | 34 | 35 | | — | 1 | — | — |
| Saginaw | 102 | 98 | 2 | 2 | — | 4 | — |
| Sanilac | | 13 | | 2 | — | 2 | — |
| Shiawassee | 29 | 29 | | — | — | 1 | 3 |
| St. Clair | 52 | 54 | | — | 2 | — | 1 |
| St. Joseph | 25 | 25 | | — | — | — | — |
| Tuscola | 31 | 25 | 1 | 5 | — | — | 1 |
| Van Buren | 30 | 28 | 1 | 1 | — | 1 | — |
| Washtenaw | 173 | 181 | 3 | — | 11 | 1 | 2 |
| Wayne | 1,899 | 1,933 | 39 | — | 73 | 34 | 19 |
| Wexford | 22 | 22 | 1 | — | 1 | — | — |
| | 4,478 | 4,495 | 83 | 59 | 159 | 79 | 60 |
| | | 4,478 | | | | | |
| | | 17 | | | | | |
| Military Members | | 83 | | | 59 | | |
| | | 100 | | | 100 | | |

| | |
|---|---|
| Emeritus and Honorary Members | 43 |
| Military Members | 83 |
| Paid Members | 4,495 |
| Total | 4,621 |

### Deaths During 1941

We regretfully record the deaths of the following sixty members during 1941:

*Bay County*—J. W. Gustin, M.D., Bay City; L. F. Laverty, M.D., Bay City.

*Berrien County*—John A. Schram, M.D., St. Joseph.

*Calhoun County*—George C. Hafford, M.D., Albion; Wm. H. Riley, M.D., Battle Creek; W. A. Royer ,M.D., Battle Creek.

*Chippewa-Mackinac*—F. H. Husband, M.D., Sault Ste. Marie.

*Delta-Schoolcraft*—George C. Bartley, M.D., Escanaba.

*Dickinson-Iron*—Claude W. Walker, M.D., Iron Mountain.

*Eaton County*—A. H. Burleson, M.D., Olivet.

*Ingham County*—Archibald M. Campbell, M.D., Lansing; A. E. Owen, M.D., Lansing.

*Ionia-Montcalm*—J. F. Pinkham, M.D., Belding.

*Jackson County*—P. R. Hungerford, M.D., Concord, J. C. Kugler, M.D., Jackson; George A. Seybold, M.D., Jackson; E. D. Wilson, M.D., Cement City.

*Kalamazoo County*—John A. Rickert, M.D., Allegan; A. H. Rockwell, M.D., Kalamazoo; L. H. Stewart, M.D., Kalamazoo; A. E. West, M.D., Kalamazoo.

*Kent County*—J. E. Bolender, M.D., Grand Rapids; Don Bruce Cameron, M.D., Grand Rapids; F. J. Diamond, M.D., Ravenna; Alexander G. MacPherson, M.D., Grand Raipds.

*Lapeer County*—Kenneth W. Dick, M.D., Imlay City.

*Lanawee County*—Artemus W. Chase, M.D., Adrian; C. H. Heffron, M.D., Adrian.

*Macomb County*—T. P. Russell, M.D., Centerline; John H. Seaman, M.D., New Haven.

*Monroe County*—George W. Williamson, M.D., Dundee.

*Northern Michigan Counties*—R. H. Wessels, M.D., Mancelona.

*Oakland County*—Everett L. Bradley, M.D., Pontiac; Clark J. Sutherland, M.D., Clarkston.

*St. Clair County*—Reginald Smith, M.D., Port Huron.

*Shiawassee County*—F. L. Bates, M.D., Durand; James J. Haviland, M.D., Owosso; George P. Sackrider, M.D., Owosso.

*Tuscola County*—William Petrie, M.D., Caro.

*Washtenaw County*—James F. Adams, M.D., Ann Arbor; G. H. Belote, M.D., Ann Arbor.

*Wayne County*—C. C. Ames, M.D., Detroit; B. Bertram, M.D., Detroit; Harry G. Bevington, M.D., Detroit; Earl S. Bullock, M.D., Detroit; A. S. DeWitt, M.D., Detroit; Edwin B. Forbes, M.D., Detroit; M. Nathaniel Frank, M.D., Detroit; H. J. Hammond, M.D., Detroit; Thomas J. Henry, M.D., Detroit; Albert G. Huegli, M.D., Detroit; Warren L. Hulse, M.D., Detroit; Louis Klein,M.D., New Jersey; Fred Wm. Munro, M.D., Detroit; Barney Nosanchuk, M.D., Detroit; Robert G. Owen, M.D., Detroit; Howard W. Salisbury, M.D., Dearborn; H. H. Sanderson, M.D., Detroit; Eugene Smith, Jr., M.D., Detroit; Cyril K. Valade, M.D., Detroit.

### Financial Status

The fiscal year of the State Medical Society closed December 20, 1941. The accountants, Ernst & Ernst, have audited the books and have furnished an analysis of its financial condition. Their report reveals the following facts:

The assets of the society are given as $55,102.58 as compared with $39,214.40 of a year ago, showing an increase of $15,888.18. The net worth is $48,771.88 as compared with $37,788.63 of a year ago—a gain of $10,983.25.

The income from dues was $46,576.78—an increase of $402.76 over the previous year. Interest received totaled $997.30—an increase of $168.12 over last year. Miscellaneous income is listed at $135.60. The income from the JOURNAL was $2,821.45. This, however, results after receipts from membership fees of $6,652.72 being allocated to it. The total income of the Society is $50,531.13—a gain of $460.61.

The expenses of the Society totaled $39,077.36—an increase of $2,952.12 over last year. These divided as follows:

1. Administrative and general.....$21,824.43
2. Society activities ..... 9,463.81
3. Committee expense ..... 7,789.12

The expenses were $5,822.64 under the budget estimate.

The security portfolio with certain additions remains the same. The additions were entirely U. S. Government Bonds and were acquired at a cost of $7,867.03 and have a maturity value of $8,700. The securities now have a market value of $30,674.06 as compared with $22,811.25 one year ago.

The auditors included a report of their audit of the Medical Defense Fund, which was set up by The Council, December 15, 1939, with Dr. William A. Hyland as Trustee, for the purpose of terminating past obligations of the Society with respect thereto.

This fund had a value of $4,754.57 on December 21, 1940. Interest on bonds totaled $330.00. The increase in market value of the bonds was $11.25—making a total of $5,095.82. During the year legal fees paid totaled $625.00 and the cost of the Trustees' bond was $12.50, totaling $637.50. The trust balance December 20, 1941, was $4,458.32. No securities were sold during the year.

*Summary*—The income in the last fiscal year was higher by $402.76. The expenses were higher by $2,952.12. The net worth of the Society increased $10,983.25. THE JOURNAL was subsidized by allocation from members' dues in the amount of $6,652.72. Without this subsidy it would have shown a loss of $3,831.27 for the year. The securities held at the end of 1940 now have a market value which is almost precisely the same—a gain of $4.22 to be exact. The addition of $7,867.03 was from savings effected during the current year. From these figures it will be noted that the Society was operated well under the budget set up at the beginning of the year.

The anticipated loss of income due to war activities will undoubtedly be more keenly felt in 1942, when probably no more than 4,100 paying members will be enrolled for the full twelve months of the year.

### 1941 Annual Meeting

The 1941 Annual Session held in Grand Rapids, showed a total registration of 2,117. This was a very remarkable attendance for an outstate meeting. The 1940 attendance at the Session held in Detroit was 2,561.

To the General Session type of scientific program was added the feature of Discussion Conferences. These round tables gave an opportunity for questions and answers and permitted the members to discuss with the essayists various phases of the latter's presentations.

Available facilities in Grand Rapids permitted the development of a scientific exhibit. These displays were sponsored by various institutions and organizations.

The policy of bringing to the Scientific Assembly out-of-state essayists of national and international reputation was continued, and no expense was spared in making the meeting as interesting and attractive as possible. Despite the great expense incurred in maintaining the high standard of the Michigan meeting, a substantial profit accrued to the Society as a result of the large and splendidly developed technical exhibit. The registrants at the convention showed their usual appreciation to the technical exhibitors, and gave them their generous attention.

### County Society Conferences

Two conferences of secretaries of the component county medical societies were held during 1941—the annual meeting in Lansing in January and another in Grand Rapids on the occasion of the Annual Meeting. The precedent of meeting in January with State, County and City Health Directors was continued in 1941. The bringing together of the officers of county medical societies and health directors has a very decided value in developing a mutual understanding resulting in better co-relations of joint activities.

### Committees

The growing activity and interest in committee projects reached an all-time high in 1941. It is impossible to devote sufficient time and space to detail the activities of all the committees.

Particular attention should be invited to the work of the Legislative Committee. This group was active in the consideration of over 50 legislative bills which affected the medical profession.

All bills detrimental to medicine and public health failed to pass and a number of good health measures were placed on the statute books. These results give evidence of the splendid work of this committee.

The Committee on Medical Preparedness has been very active, and its work is becoming more and more arduous due to the rapidly developing war efforts of the medical profession.

Due to the establishment of five new centers of extramural postgraduate medical education in the Upper Peninsula, the work of this committee continues to expand and become more important to the individual member of the Society.

Most of the committees of the Society have been developing long-range programs, and the effects of such planning is becoming increasingly apparent as these projects continue to mature.

### Society Activities

During the past year, Councilor District meetings were held in nearly every district. At these meetings, which replaced "State Society Nights," various up-to-the-minute reports were made by the officers and councilors. These conferences were designed to allow a discussion of various questions presented by the members. The meetings were arranged to follow closely after the Michigan State Medical Society convention, and thereby serve to stimulate the component societies to action on their programs and projects early in their Society year.

On the occasion of the Councilor District meetings and at other times, the two secretaries contacted practically all of the fifty-five component societies in 1941. A continued and growing interest in all phases of medical society activity was noted in most of the county units. A good balance was evidenced in the interest shown in both the scientific and economic phases of medical practice.

As a general rule, regular county society meetings are being held and prompt actions are taken on requests from the State Society.

Most county societies are following the precedent established by the State Society in maintaining in good standing, without payment of dues, all members in active military service.

In 1941, the House of Delegates ordered the development of an endowment fund for postgraduate medical education, and recommended an initial appropriation of $10,000.00. The ultimate development of this endowment will insure the high standard of postgraduate medical education, in which Michigan is now leading other states of the country.

During 1941 eight secretary letters were issued, five to secretaries of county societies and three to all members of the State Society.

As a phase of good public relations, which is becoming more vital to the medical profession, I respectfully recommend that in 1942, a public meeting be held in each Councilor district, to be sponsored by the medical profession and addressed by the officers of the State Society. Such meetings would do much to develop among the laity a better understanding of medical matters, and would tend to lift the alleged "veil of secrecy" from the activities of the medical profession. In these days of changing social trends and rapid advancements in medical science and research, our public relations needs to be the best.

Your secretary desires to express to this Council his sincere appreciation of its fine coöperation during 1941; and to the committees of the Society a hearty commendation of their splendid efforts in the successful execution of many fine projects.

Mr. Burns and the executive office personnel have been most untiring in the discharge of their many duties.

To Mr. Burns especially, for his fine coöperation, helpful suggestions and constant inspiration, and to all those who have aided so generously in discharge of the duties of this office, your secretary is most grateful.

Respectfully submitted.

L. Fernald Foster, M.D., *Secretary*

*The report, with recommendation re district meetings, was referred to the County Societies Committee.*

4. The *Treasurer's Report,* as submitted by Wm. A. Hyland, M.D., was read, as follows:

## TREASURER'S REPORT—1941

As Treasurer of the Michigan State Medical Society, I wish to submit the following report for the year 1941.

As required by the bylaws of the Michigan State Medical Society, the usual indemnity bond was filed with the Secretary of the Michigan State Medical Society.

During the past year a total of $7,867.03 was invested in United States Government Savings and Defense Bonds. The Council recommended at the time of their meeting on January 12, 1941, that $7,500 be invested, which amount was appropriated from the General Treasury. On August 15, 1941, ninety-six shares of National Gas and Electric Corporation stock was disposed of at a market value of $329.70. This amount was then reinvested in United States Defense Bonds, plus $40.30 in order to purchase a bond in round figures of $370.00.

During the year a total of $874.89 was received as income from interest coupons and dividends on bonds in the Treasurer's account.

The present value of the bonds and securities held by the Michigan State Medical Society, quoted Market values as of December 21, 1941, is $30,674.06.

The Canadian Railway holdings which had depreciated following the declaration of war in 1939, have appreciated handsomely at this time. The same thing has happened to our holdings in American Railways after our entry into the war, but at this early date are beginning to climb and I feel that at the time of our annual meeting a year hence, will have enhanced in value unless the war terminates against us.

Total cash on hand in the Michigan National Bank of Grand Rapids, which includes a balance brought forward from last year and income earned on our bond account this year, $1,356.30.

Respectfully submitted,

William A. Hyland, M.D.

*The report was referred to the Finance Committee.*

5. The *Trustee's Report,* as submitted by Wm. A. Hyland, M.D., was read, as follows:

## TRUSTEE'S REPORT—1941

As Trustee for the Michigan State Medical Society, I wish to submit the following report for the year 1941.

The following bonds are held in trust for the Michigan State Medical Society:

Two New England Gas and Electric Company Bonds
Two Southern Pacific Railroad Company Bonds
Two Grand Rapids Affiliated Bonds
One New York Central Railroad Bond

The present value of these bonds at market value is $4,352.50.

The three railroad bonds in this account have depreciated since the declaration of war, but at this time are showing an upward trend and before the end of this year, I expect them to be equal, if not more so in value.

In the exchange of securities between the Trustee Fund and the General Fund in 1940, there was a deficit of $2.14 which is due the Trustee Account. This matter has been held in abeyance waiting for a ruling by the auditors in order that there be no connection between the General and Trustee Accounts. However, it is the feeling of the auditors that this can be transferred at any time without any explanation other than the usual record that would occur in the purchase or disposal of bonds in either account.

During the year 1941, a total of $330.00 was received as interest income on these bonds.

A total of $625.00 was paid out for legal fees, during the year 1941, and $12.50 for Trustee's Bond.

Total cash on hand in the Michigan National Bank is $103.68. Total value of the Trustee Fund is $4,458.32.

Respectfully submitted,

William A. Hyland, M.D., *Trustee*

*The report was referred to the Finance Committee.*

6. The *Editor's Annual Report* was presented by Roy Herbert Holmes, M.D., as follows:

## EDITOR'S ANNUAL REPORT—1941

The policy of The Journal, in the selection of scientific articles based primarily upon the needs and desires of the general practitioner, has been continued during the past year. The coöperation of the various authors in this attempt has been indeed encouraging.

During 1941, The Journal has published eighty-three original scientific articles averaging four pages in length. Of this number, all were of a general nature. Thirty-six pertained especially to internal medicine; six to eye, ear, nose, and throat; two to gynecology; fourteen to surgery; seven to obstetrics; three to orthopedics; four to pediatrics; one to economics; and nine to urology. One was placed in the new department, "Experimental

Procedures." Of these, sixty-three were written by members of the Michigan State Medical Society and twenty by out-of-state medical leaders, the original papers having been given at a state or county medical society meeting in Michigan. No other sources of scientific papers were used.

The use of spacing, paragraph- and sub-headings, and boldface type has been continued and has met with approval of those members from whom it has been possible to obtain an opinion.

During the past year, the Editor has written and published thirty-one editorials. Each editorial has been submitted to each member of the Publications Committee in order that there may be no conflict with the policy of The Council.

The two departments instituted last year, "You and Your Government," and "You and Your Business," have been continued.

The general physical make-up of THE JOURNAL, except for a few minor changes, has remained about the same. New space markers have been instituted and a greater variety of headings used.

In order to more fully coöperate with the advertisers, who make THE JOURNAL possible, more and more reading material is being inserted on and between the advertising pages.

No typographical errors were invited to the Editor's attention during the past year.

### Readers' Service

A year ago it was announced that a plan would be instituted whereby the author, when his manuscript is accepted, would submit a short abstract of the highlights of his paper. This has been carried out with complete coöperation on the part of the authors. At the time of publication these abstracts were made available to the other state journals and they have been welcomed by many of the editors. Several inquiries were made from other journals as to the mechanism of obtaining these and it is believed that within a few years other state society journals will follow the precedent. These are published in THE JOURNAL under the heading, "Readers' Service." This service makes it possible for the busy practitioner to select the papers most interesting to him.

It was announced last year that arrangements had been made with the Wayne University College of Medicine to publish each month a Clinico-Pathological Conference. This was maintained for three months but shortage of funds of Wayne University forced its discontinuance. This is indeed regrettable since the selection of cases as well as the form of presentation was excellent.

Before outlining plans for the coming year the Editor wishes to thank Dr. Wilfrid Haughey and the members of his Publications Committee, who have been most helpful and coöperative, and the Bruce Publishing Company, who have lent every available facility, both physical and technical. Without the aid of these adjuncts and Secretary Foster and Mr. Burns it would have been impossible to have accomplished these changes. To all of them and especially to Dr. Haughey and Mr. Burns the Editor is deeply indebted.

### The Future

The outlook for the publishing of medical as well as other journals is not bright. It is necessary, in the coming year, to reduce the quality of paper in THE JOURNAL, although even with such reduction it will be of a finer grade and weight than most of the other state journals. It has been necessary to discontinue the tinted paper which was so popular during the past year. The reproduction of interesting scientific articles which were originally printed in THE JOURNAL fifty years ago was started eight months ago and will be continued. Favorable comments and some interesting inquiries have been received. Much can be learned from medical leaders of fifty years ago.

The program for next year will be centered about many ways of increasing "reader interest" in THE JOURNAL. Attempts will be continued to stimulate correspondence to be published in THE JOURNAL from various members on scientific, economic, or organizational problems. In this, complete dependence is upon the councilors and officers of the Michigan State Medical Society; their active coöperation is eagerly sought.

ROY HERBERT HOLMES, M.D., *Editor*

*The report was referred to the Publication Committee.*

7. The *Annual Report of the Publication Committee* was presented by the Chairman, Doctor Haughey, as follows:

## ANNUAL REPORT OF PUBLICATION COMMITTEE—1941

Your Publication Committee met on January 16, 1942, in Detroit, with all members present. The following matters were discussed and various recommendations made:

(1) Budget estimates for THE JOURNAL, 1942, were made and respectfully referred to the Finance Committee, as follows:

| | |
|---|---|
| INCOME | |
| Subscriptions from members | $ 5,850 |
| Other subscriptions | 100 |
| Advertising sales | 11,000 |
| Reprint Sales | 1,000 |
| Journal Cuts | 150 |
| Total | $18,100 |
| EXPENSES | |
| Editor's Salary | $1,200 |
| Editor's Expense | 900 |
| Printing and Mailing | 11,450 |
| Cost of Reprints | 1,000 |
| Discounts & Commissions | 1,500 |
| Allocation of Adm. Expense | 1,800 |
| Postage | 250 |
| Total | $18,100 |

(2) The Editor presented his Annual Report which was approved by the Committee and referred to The Council. The Editor also exhibited the other state medical journals of the country for purposes of comparison with the MSMS JOURNAL; the Committee noted with pride that the Michigan JOURNAL compares favorably with the best of the other thirty-four state medical publications in the United States.

(3) Specific rate increases for medical advertising in the MSMS JOURNAL, which had previously been approved in principle, were adopted by the Committee, as follows:

NEW RATES EFFECTIVE JANUARY 1, 1942

| Insertions | 1 page | ½ page | ¼ page | ⅛ page |
|---|---|---|---|---|
| 12 | $32 | $18 | $12 | $8 |
| 6 | 35 | 19 | 13 | 9 |
| 3 | 39 | 22 | 16 | 12 |
| 1 | 42 | 24 | 19 | 14 |

The Committee respectfully recommends that The Council approve these new medical space rates, necessary because of increased printing costs.

(4) Inauguration of non-medical space rates. Your Committee discussed the advisability of setting up a new schedule of non-medical space rates, for products and services beyond the ordinary scope of medical practice at roughly 20 per cent increase over the medical space rates, which would allow an agency commission of 15 per cent and 2 per cent. The Committee felt that such non-medical space rates, now being considered at the suggestion of the Coöperative Medical Advertising Bureau by all other state medical publications, should be approved for the MSMS JOURNAL, on the above stated basis.

(5) Advertising was generally discussed. The Committee felt that the advertisement of any firm which had been investigated and had been accepted by the

CMAB, particularly a firm which placed a bond indemnifying any patron who might suffer as a result of his experience with the concern, should be accepted and/or continued in the MSMS JOURNAL.

(6) Cost of color in JOURNAL advertising was presented by the Executive Secretary. The Committee felt that color in advertising helped to make THE JOURNAL more attractive and that it should be encouraged.

(7) The Editor requested all members of the Publication Committee to aid him with suggestions on creating greater reader interest in THE JOURNAL. Your Committee feels that all members of The Council and all officers of the State Society should give serious consideration to ways and means so that THE JOURNAL, through its present features and the creation of additional departments, where indicated, may be read by more and more members.

Respectfully submitted,

WILFRID HAUGHEY, M.D.
OTTO O. BECK, M.D.
T. E. DEGURSE, M.D.
R. C. PERKINS, M.D.
C. E. UMPHREY, M.D.

*The report was referred to the County Societies Committee.*

## ANNUAL REPORT OF COUNTY SOCIETIES COMMITTEE—1941

8. The *Annual Report of the County Societies Committee* was presented by the Chairman, Doctor Sladek, and *referred to the Finance Committee.* (See Page 152.)

## ANNUAL REPORT OF FINANCE COMMITTEE—1941

9. The *Annual Report of the Finance Committee* was presented by the Chairman, Doctor Moore, as follows:

Your Finance Committee met on January 16, 1942, in Detroit, with Drs. Moore, Barstow, Ledwidge and Morrish present, also President Carstens, Council Chairman Brunk and Secretary Foster. The following matters were discussed and various recommendations made:

(1) The report of Ernst & Ernst, re their audit of the books of the Michigan State Medical Society, was presented and discussed.

(2) They noted with satisfaction that sales of exhibit space in the 1942 Grand Rapids Convention has totaled $10,357.50 as of this date.

(3) MSMS Postgraduate Medical Education Endowment Fund—A proposed Trust Fund Agreement was presented to the Committee and referred to The Council. The Committee believes that it was the sense of the House of Delegates that this fund is to be started from funds to be taken from the bond account.

(4) Executive Office Salaries were thoroughly discussed. Motion of Drs. Barstow-Ledwidge that the following schedule be recommended to The Council: Leet, $220 per month; Shepline, $155 per month; Tracy, $125 per month; Thomas, $100 per month. Carried unanimously.

(5) We recommend that $400.00 be budgeted as Special Expenses for the Secretary.

(6) We recommend that $200 be budgeted as Special Expenses for the Executive Secretary.

(7) 1942 Budget. The budget for 1942 is recommended to The Council on the basis of $43,800 as submitted.

Respectfully submitted,

VERNOR M. MOORE, M.D., *Chairman*
W. E. BARSTOW, M.D.
L. J. JOHNSON, M.D.
P. L. LEDWIDGE, M.D.
R. S. MORRISH, M.D.

Discussion. Chairman Moore presented the 1941 MSMS House of Delegates' action recommending the creation of a MSMS Postgraduate Medical Education Fund, and also gave a résumé of a proposed trust agreement, creating such a fund.

*The report and the proposed trust agreement were referred to the Publication Committee.*

10. *Bills Payable* for January, 1942, were presented and approved on motion of Drs. Haughey-DeGurse. Carried unanimously.

The report of cash on hand was presented by the Secretary.

## REPORTS OF MSMS COMMITTEES

11. *Child Welfare Committee.*—The minutes of the meetings of December 11, 1941, and of January 8, 1942, were read and discussed, and referred to the County Societies Committee on motion of Drs. Holmes-Ledwidge. Carried unanimously.

12. *Ethics Committee.*—A matter involving the ethics of a member of the Society, and the recommendation of the MSMS Ethics Committee, were thoroughly discussed.

Motion of Drs. Ledwidge-Barstow that the report of the MSMS Ethics Committee be accepted and that a copy of the report be transmitted to the county medical society in whose jurisdiction the subject of the complaint resides. Carried unanimously.

Motion of Dr. Riley, seconded by several, that the Chairman of The Council appoint a committee to study the MSMS bylaws provisions relative to procedure in cases of ethics, to make necessary recommendations for report back to The Council or its Executive Committee, for subsequent presentation to the House of Delegates. Carried unanimously.

*Committee*: C. L. Hess, M.D., chairman; L. Fernald Foster, M.D., and Roy Herbert Holmes, M.D.

13. *Medical Preparedness Committee.*—The minutes of the meetings of December 18, 1941, and of January 14, 1942, were presented. The Secretary reported on possible Procurement needs of the Army and Navy, broken down by Michigan counties.

Motion of Dr. Holmes, seconded by several, that the reports of the Medical Preparedness Committee be approved. Carried unanimously.

Doctor Morrish presented a plan for securing returns on the MSMS questionnaire which had been successful in Genesee County.

The need for ascertaining the exact number of doctors of medicine in active service at the present time, for presentation at the Annual County Secretaries Conference of January 25, was discussed. Motion of Drs. Holmes-DeGurse that the Secretary be instructed to send a postal card to every county society secretary requesting that he supply information on the total number of physicians in his county or district who had already entered the U. S. Service—the list to include the non-members, listed separately; the Wayne County Medical Society to be excepted from this request. Carried unanimously.

14. *Syphilis Control Committee.*—The minutes of the meeting of January 15, 1942, were presented and adopted on motion of Drs. Umphrey-Hubbell. Carried unanimously.

The meeting was recessed at 12:30 p.m.

## SECOND SESSION

The Second Session convened at 1:40 p.m. with all being present who answered to the roll call at the First Session. Guests present were Jay C. Ketchum and J. D. Laux of Michigan Medical Service.

## MMS PROGRESS REPORT

15. *Michigan Medical Service.*—The Chair called upon Henry R. Carstens, M.D., President of MMS, to present a progress report on the activities of the medical service plan. Doctor Carstens reported that all county medical society secretaries had received a full listing of the schedule of benefits paid by MMS, and all other literature re the medical service plan; also

that a manual has been prepared for distribution to the county secretaries in Lansing on January 25. A manual is also in the process of development for distribution to physicians generally.

The full schedule of benefits has been paid to physicians for service rendered since October 1, 1941.

President Carstens requested the privilege of the floor for J. D. Laux, who presented information on the plans of the Social Security Board to include group hospitalization as a benefit under social security, available to 115,000,000 persons in the U. S.; he stated the executives of group hospitalization plans were active investigating all developments of this proposed program. Dr. Carstens urged further study by The Council.

President Carstens requested the privilege of the floor for Jay C. Ketchum, Executive Vice President of MMS, who reported on medical participation and cooperation. He also presented the following resolution adopted by the Bay County Medical Society, on January 7, 1942:

### BAY COUNTY RESOLUTION

Whereas, The Michigan State Medical Society nearly ten years ago began studies of the costs of medical care and as early as 1933 its Committee on Economics presented to the House of Delegates a plan of voluntary health insurance, known as Mutual Health Service, and

Whereas, in 1939 these studies and surveys resulted in action by the House of Delegates to the effect that it directed THE COUNCIL of the Michigan State Medical Society to develop and put into operation a plan of voluntary health service, and

Whereas, this plan, known as Michigan Medical Service, has now been successfully operating for less than two years, with 3,500 of the 4,600 members of the Michigan State Medical Society acting as participating physicians, and with over 400,000 subscribers enrolled, and

Whereas, the plan, which preserves the traditions of American medical practice, has made good medical care available to more persons and has assured the payment of reasonable fees to the private physicians of the patients' choice, and

Whereas, Michigan Medical Service, through a coöperation of patients and their physicians, and by its phenomenal growth has established the fact that there is no need for the intrusion of government into the private practice of medicine, and it has met the demands of changing social trends,

Be It Resolved, that the Bay County Medical Society, practically 100 per cent of whose members are participants, recognizes and appreciates the philosophy upon which Michigan Medical Service was developed, and hereby expresses its desire to earnestly coöperate in continuing and further developing its operation; and believes that only through constructive criticisms and suggestions by the doctors of medicine of Michigan can the plan have a normal evolutionary growth; and recommends it as a sound procedure in preserving the private practice of medicine, at the same time meeting the demands of changing social trends, and

Be It Further Resolved, that a copy of these resolutions be sent to THE COUNCIL of the Michigan State Medical Society and the Board of Directors of Michigan Medical Service, and to each of the component county medical societies of the Michigan State Medical Society.

Mr. Ketchum, in answer to a question, stated that Michigan Medical Service would end the year 1941 with an estimated surplus of approximately $30,000.

The Chair thanked Doctor Carstens and Messrs. Ketchum and Laux for their reports.

*Conference on Medical Service Plans.*—An invitation to send representatives to this conference, to be held in Chicago on February 14, 1942, was presented. After discussion, motion was made by Drs. DeGurse-Haughey that Secretary Foster be appointed as a representative of the MSMS at this Conference. Carried unanimously. Motion of Drs. Holmes-Haughey that Council Chairman A. S. Brunk be appointed as a representative of the MSMS at this Conference. Carried unanimously.

Resolution re MMS from Genesee County Medical Society. The following resolution was presented to The Council:

"Resolved, that the Genesee County Medical Society,
1. is opposed to the Michigan State Medical Society being in the insurance business;
2. is opposed to the Michigan Medical Service and to any reorganization or alteration of it;
3. and asks that the Michigan Medical Service be dissolved."

This resolution was discussed and on motion of Drs. Morrish-Sladek was accepted and placed on file. Carried unanimously.

### CRIPPLED CHILD

16. A progress report on the afflicted-crippled child laws' administration, and on the rules and regulations of the Michigan Crippled Children Commission, was presented by the Secretary.

A letter from the Michigan Crippled Children Commission inviting the MSMS to send representatives to a meeting with the Governor and the Michigan Crippled Children Commission to discuss various problems in connection with the medical care of crippled children, February 18, 1942, was read. Motion of Drs. DeGurse-Barstow that the Chair appoint such a committee. Carried unanimously.

*Committee*: Dr. Cummings, Chairman; and Drs. Carstens and Foster.

### REHABILITATION OF REJECTED DRAFTEES

17. The Executive Secretary reported on the action of the 1941 House of Delegates that a special committee be appointed to study plans for the rehabilitation of the rejected draftee. The government program, proposed for the states of Virginia and Maryland, as well as the special rehabilitation plan for syphilis in Kansas, were presented and discussed. Motion of Drs. Haughey-Sladek that a committee be appointed with power to act. Carried unanimously.

*Committee*: Dr. Haughey, Chairman; and Drs. Barstow and Ledwidge.

### MISCELLANEOUS BUSINESS

18. *Better Business Bureau Program in Indiana.*—This plan was presented by Doctor Umphrey, Chairman of the special committee to investigate same, and was fully discussed.

Motion of Drs. Umphrey-Barstow that a similar program be given a trial of one year in Wayne County, the cost to be divided equally between the MSMS and the WCMS.

The efficient work along this line being done by the representative of the State Health Department was outlined to The Council.

Drs. Moore-Barstow moved that the motion under consideration be tabled. Carried unanimously. The matter of necessary contacts, to procure action, was referred to the President-elect.

19. *Farm Security Administration.*—The request of the FSA to develop experimental projects in various Michigan counties was presented by the Executive Secretary, and discussed by Dr. Carstens, *et al.* After thorough consideration, motion was made by Drs. Holmes-Moore that a committee be appointed to study this subject and to report to The Council at a later date. Carried unanimously.

20. *Michigan Council on Adult Education.*—The invitation that the MSMS appoint a representative to the MCAE was approved and the Chair was authorized to appoint such a representative on motion of Drs. DeGurse-Ledwidge. Carried unanimously.

*Appointee*: B. R. Corbus, M.D., Grand Rapids.

21. *National Conference on Medical Service.*—Motion of Drs. DeGurse, seconded by several, that the Chair be authorized to appoint MSMS representatives to attend the National Conference on Medical Service, Chicago, February 15. Carried unanimously.

The meeting recessed at 4:00 p.m.

## THIRD SESSION

The Third Session convened at 8:40 p.m. with all being present who answered to the roll call of the First Session. Also present were Past Presidents H. A. Luce, M.D., and Grover C. Penberthy, M.D.; also George M. Curtis, M.D., Columbus, Ohio. The Chair called upon the Past Presidents for a few words, and also upon Professor Curtis, who outlined various actions taken at the meeting of the MSMS Iodized Salt Committee held today in Detroit, which he had attended.

## REFERENCE REPORTS OF COMMITTEES

### Publication Committee

22. *Reference Report of the Publication Committee* was presented by Chairman Haughey, as follows:

Your Reference Committee met January 17 and considered the following matters:

(1) *Report of the Finance Committee*: (a) The Committee unanimously approved the Budget for 1942 as submitted by the Finance Committee. (b) Postgraduate Endowment Fund. The Committee recommended that the submitted trust agreement be returned by The Council to the Finance Committee for further study and clarification with reference to the following: (1) Can the purpose of the Fund be changed with changing times? (2) The Fund to be preserved as a Michigan State Medical Society fund. (3) The use of this Fund in conjunction with funds of other organizations which are designed for similar use. (4) Use of the term "doctor of medicine" instead of "general practitioner." (5) Consider placing a limit on the life of the trust—e.g. twenty-five years—when it could be renewed or terminated. (6) Obtain legal opinion relative to the agreement.

The report of the Finance Committee was then adopted as a whole.

(2) *Editor's Report.*—This report was unanimously adopted.

Respectfully submitted,
WILFRED HAUGHEY, M.D., *Chairman*
O. O. BECK, M.D.
T. E. DEGURSE, M.D.
R. C. PERKINS, M.D.
C. E. UMPHREY, M.D.

Motion of Drs. Umphrey-Huron that the Reference Report be adopted. Carried unanimously.

### County Societies Committee

23. *Reference Report of the County Societies Committee* was presented by Chairman Sladek, as follows:

Your Reference Committee met January 17 and considered the following matters:

(1) *Secretary's Annual Report.*—The Committee approved the report in its entirety with the recommendation that that portion suggesting public district meetings be left to the discretion of the individual councilors. The Committee heartily commends our Secretary for his zeal and diligence.

(2) *Publication Committee Report.*—The Committee approved this report, especially the specific increase in medical space rates for JOURNAL advertising and the proposed new non-medical space rates at roughly 20 per cent more than the medical rates.

(3) *Child Welfare Committee.*—Your Committee thoroughly discussed this report and approved it as a whole, and specifically the part relative to communicable disease control and the item concerning pediatric consultants.

Respectfully submitted,
E. F. SLADEK, M.D, *Chairman*
R. J. HUBBELL, M.D.
W. H. HURON, M.D.
A. H. MILLER, M.D.
PHILIP A. RILEY, M.D.

Motion of Drs. Sladek-Riley that the Reference Report be adopted. Carried unanimously.

### Finance Committee

24. *Reference Report of the Finance Committee* was presented by Chairman Moore, as follows:

Your Reference Committee met January 17 and considered the following matters:

(1) *Report of the Trustee.*—The Committee approved the report with the recommendation that the sum of $2.14 which the Michigan State Medical Society owes the Trustee fund should be paid.

(2) *The Treasurer's Report.*—This was studied and approved, with the exception of the figure of $7,872.59 representing the total of monies invested in U. S. Government Savings and Defense Bonds (paragraph 3 of the report); this figure should read $7,867.03.

(3) *The Annual Report of the County Societies Committee* was studied and approved as follows:

### Annual Report of County Societies Committee—1941

The County Societies Committee of The Council of the Michigan State Medical Society met on January 16, 1942, with all members present. The following matters were discussed and recommendations made:

1. *Civilian Defense:* The response of the medical profession of Michigan to the call of Civilian Defense is gratifying and the formation of the basic local Medical Advisory Committees and the nomination of local Chiefs of Emergency Medical Services was quickly accomplished. It is important that this problem be given serious consideration, and to this end we urge that all members of our profession who are not in active military service offer their services to and actively participate in the plans, discussions, and activities of their local Councils of Defense.

2. *Military Service:* We heartily commend Past President Paul R. Urmston and his Medical Preparedness Committee for their unending efforts in studying civilian medical necessity and tabulating the medical qualifications and civil status of every physician in Michigan. We are at War. The traditional method of American medicine in time of war is to offer services to our armed forces by volunteering. To this end, and always keeping in mind the results of the survey of our Medical Preparedness Committee, we offer the following recommendations:

(a) Physicians in the selectee age group are urged to immediately apply for commissions in the Medical Reserve Corps.

(b) Those physicians who are now employing medical assistants should reëstablish their own personal activity thus giving these younger physicians a freer opportunity to offer their services to the armed forces.

(c) A marked increase in activity by the older members of staffs of established clinics could result in a reduction in personnel and further free younger physicians for military service.

(d) Efforts should be continued to convince the War Department that they should offer higher commissions to older doctors of medicine on a basis of medical experience.

3. THE JOURNAL: We note with gratification that the writing of scientific articles by our membership has apparently been much stimulated the past year, as evidenced by the number of articles written by Michigan physicians and published in THE JOURNAL of the MSMS. We commend the Editor for his efforts toward promotion of Michigan medicine and urge the continuation of his present policy.

4. *Postgraduate Medicine:* The County Societies Committee recommends that a postgraduate conference be held through the Upper Peninsula at Sault Ste. Marie, Marquette, Houghton, Ironwood and Powers, and that the conference consist of four or five recognized authorities in their respective fields, and that the conference be held sometime the latter part of April or early in May.

The Committee further recommends that the Postgraduate Medical Education Committee attempt to have its program take the place of a regular county medical society meeting or a hospital staff meeting in cities where such meetings are available. It is the belief of the members of this Committee that the doctors in these cities will coöperate in such a program by the post-

graduate Committee as long as the postgraduate programs are kept at the caliber of the society meetings in the past.

5. *County Society Meetings*—Again we suggest that county societies should attempt to hold at least one meeting during the year with members of our allied professions of dentistry, pharmacy, and law, in order to promote a better understanding of mutual problems.

6. *Affiliate Fellowship in AMA*—We recommend that The Council instruct the Michigan Delegates to the American Medical Association to request Affiliate Fellowship in the AMA for all Emeritus and Honorary Members of the Michigan State Medical Society who are eligible for this honor, according to the rules of the AMA.

7. *Question of Ethics*—The question of the Chairman of the Public Relations Committee, MSMS: "Can a doctor of medicine render medical, surgical or obstetrical care to a member of his immediate family?" was discussed together with replies from the Bureau of Legal Medicine and Legislation of the AMA, George Crile, M.D., and MSMS President Henry R. Carstens, M.D. The question of whether or not a request should be made to the Attorney General of the State of Michigan was presented. Motion of Drs. Riley-Miller that the County Societies Committee deems it proper for a physician to take care of members of his own family when he feels it is advisable; that the inquirer be referred to Article II, Chapter III, Section 1, of the Principles of Medical Ethics of the American Medical Association which read as follows: "Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians." It is the feeling of this Committee that it would be unwise to refer this question to the Attorney General for an opinion inasmuch as there are so many variables and the fact that this is not a legal question. The motion was carried unanimously.

8. *Radio Activity:* The radio programs of the Michigan State Medical Society were discussed at length. Undoubtedly, radio broadcasting provides a modern and efficient means of bringing medical information to the public and should be encouraged and further developed. In some counties, the radio programs are now being presented very effectively; the county medical societies and individual physicians responsible for this admirable condition in those communities should be commended for their excellent work. The Committee feels the programs are of great value and might be further improved, especially in counties where the work has not been completely effective, by utilizing the following suggestions: (a) Effort be made to select good speakers; (b) Good subject matter be chosen; (c) Good radio time be secured; (d) Program and time be fitted to local conditions; (e) Speakers be trained in radio broadcasting and improvements be made in technique through contacts with the radio stations; (f) Transcriptions of dramatized programs be utilized wherever possible; (g) Medical authorities in the various special fields prepare their own scripts for personal presentation in their home cities; (h) Dramatized programs prepared by professional script writers and presented by announcers and actors be utilized when possible; (i) The Radio Committee, MSMS, meet frequently and evaluate existing programs and inaugurate improvements, as indicated; (j) All scripts be edited by either the state or county medical society radio committee, before presentation."

Respectfully submitted,
E. F. Sladek, M.D., *Chairman*
R. J. Hubbell, M.D.
W. H. Huron, M.D.
A. H. Miller, M.D.
P. A. Riley, M.D.

This Reference Report of the Finance Committee is respectfully submitted.

V. M. Moore, M.D., *Chairman*
W. E. Barstow, M.D.
L. J. Johnson, M.D.
P. L. Ledwidge, M.D.
R. S. Morrish, M.D.

The paragraph relative to radio activity was discussed by Drs. Penberthy, Riley, Sladek, Moore, Huron, Haughey, Ledwidge and Cummings.

Motion of Drs. Moore-Sladek that the Reference Report be adopted. Carried unanimously.

## MISCELLANEOUS

25. *Invitation to the American Psychiatric Association* to hold its 99th Annual Meeting in Detroit in 1943 was presented by Doctor Luce. Motion of Drs. Morrish-Sladek that such an invitation should be transmitted to the American Psychiatric Association, through the Michigan Society on Neurology and Psychiatry, and that the MSMS extends its felicitations and most cordial welcome. Carried unanimously.

26. *Irregular Practice.*—A case involving irregular practice was presented by President Carstens. Motion of Drs. Ledwidge-Haughey that this matter be referred to legal counsel for study, and that the Executive Committee of The Council be authorized to proceed with any action as indicated. Carried unanimously.

27. *Information to Public re Nutrition.*—A letter from J. W. Conn, M.D., representative of the MSMS to the Michigan Nutrition Defense Committee, urging that physicians help to distribute information with regard to normal nutrition, was read, and on motion of Drs. Umphrey-Huron, was referred to the Public Relations Committee. Carried unanimously.

The meeting was recessed at 9:40 p.m.

## FOURTH SESSION

The Fourth Session convened at 10:25 p.m. with all being present who answered to the roll call at the First Session.

### BUDGET FOR 1942

28. The proposed 1942 MSMS and Journal Budgets were presented by Doctor Moore, Chairman of the Finance Committee, who explained the budgetary allotments, item by item:

BUDGET FOR 1942

| | |
|---|---|
| INCOME | |
| 4,100 members at $12, plus ½ and ¼ of new members | $49,700 |
| Interest on Savings Account | 100 |
| Miscellaneous Income | 150 |
| Total Income | $49,950 |
| Less allocation to Journal at $1.50 | 6,150 |
| Net Income | $43,800 |
| APPROPRIATIONS | |
| *Administrative and General* | |
| Salaries—Administrative | $12,000 |
| Office | 7,200 |
| Extra | 300 |
| Office Rent & Light | 1,365 |
| Printing, Stat., Supplies | 900 |
| Postage | 1,000 |
| Insurance & Fidelity Bonds | 190 |
| Auditing | 300 |
| New Equipment & Repairs | 100 |
| Telephone & Telegraph | 800 |
| Michigan Sales Tax | 100 |
| Payroll taxes | 154 |
| Miscellaneous | 100 |
| Total | $24,509 |
| Less expenses redistributed to Journal | 1,800 |
| Total Administrative and General | $22,709 |

*Society Activities*

| | |
|---|---|
| Council Expense | $ 2,800 |
| District Meetings Expense | 1,200 |
| Delegates to AMA | 900 |
| County Secretary's Conferences | 1,000 |
| General Society Travel Expense | 1,800 |
| Officers' Travel Expense | 900 |
| Secretary's Letters | 500 |
| Publication Expense | 50 |
| Reporting Annual Meeting | 140 |
| Education Expense | 2,000 |
| National Conf. on Medical Service | 200 |
| Organizational Expense | 500 |
| Legal Expense | 500 |
| Woman's Auxiliary—Ann. Meet. | 200 |
| Sundry Society Expenses | 1,000 |
| Contingent Fund | 721 |
| Total Society Expense | $14,411 |
| Less gain from Annual Meeting | 2,300 |
| NET SOCIETY EXPENSE | $12,111 |

*Committee Expenses*

| | |
|---|---|
| Legislative Committee | $ 1,000 |
| Dist. of Med. Care | 100 |
| Joint Com. on Health Education | 1,000 |
| Postgrad. Med. Education Committee | 3,025 |
| Preventive Medicine Committee | 250 |
| Cancer Committee | 1,000 |
| Child Welfare Committee | 250 |
| Iodized Salt | 100 |
| Heart and Degenerative Diseases | 50 |
| Industrial Health | 200 |
| Maternal Health | 150 |
| Mental Hygiene | 50 |
| Radio | 25 |
| Syphilis Control | 400 |
| Tuberculosis Control | 30 |
| Public Relations Committee | 250 |
| Ethics Committee | 50 |
| Scientific Work Committee | 100 |
| Medical Preparedness Committee | 500 |
| Prelicensure Medical Education Committee | 100 |
| Professional Liaison Committee | 100 |
| Sundry Other Committees | 250 |
| TOTAL COMMITTEE EXPENSE | $ 8,980 |
| GRAND TOTAL | $43,800 |

BUDGET FOR THE JOURNAL, 1942

INCOME

| | |
|---|---|
| Subscriptions from members | $ 6,150 |
| Other subscriptions | 100 |
| Advertising Sales | 11,000 |
| Reprint Sales | 1,000 |
| Journal cuts | 150 |
| TOTAL JOURNAL INCOME | $18,400 |

EXPENSES

| | |
|---|---|
| Editor's Salary | $ 1,200 |
| Editor's Expense | 900 |
| Printing and Mailing | 11,550 |
| Cost of reprints | 1,000 |
| Discounts and Commissions on advertising sales | 1,700 |
| Allocation of administrative and general office expense | 1,800 |
| Postage | 250 |
| TOTAL JOURNAL EXPENSE | $18,400 |

Among other items, the Chairman stated that half of the Cancer Control Committee budget was earmarked for expenses of the Field Representative in Cancer.

Motion of Drs. Moore-Huron that the Budget, as presented, be adopted. Carried unanimously.

The meeting was recessed at 10:50 p.m.

## FIFTH SESSION

The Fifth Session convened at 10:30 a.m. on January 18, 1942, with all being present who answered to the roll call at the First Session, except Doctor DeGurse.

Past President J. M. Robb, M.D., who was present, was called upon by the Chair. Doctor Robb mentioned that he had offered his resignation as the Michigan member of the Advisory Committee to the Procurement and Assignment Service Board as he felt that P. R. Urmston, M.D., Chairman of the MSMS Medical Preparedness Committee, is far better qualified to handle this assignment. Further, Doctor Robb stated he was ready and willing at all times to be of service to the State Society and the American Medical Association in any capacity he was able to fill.

29. *Michigan Medical Service.*—A delegation under the chairmanship of Past President Henry Cook, M.D., made presentations concerning Michigan Medical Service. Present with Dr. Cook were C. W. Colwell, M.D., representing Genesee County; E. M. Vardon, M.D., representing the Highland Park Physicians Club; Robert S. Breakey, M.D., and C. B. Gardner, M.D., representing the Ingham County Medical Society; Vern Abbott, M.D., and Robert Baker, M.D., representing the Oakland County Medical Society. After their presentations, the delegation was excused.

The Council thoroughly discussed the matter and motion was made by Drs. Morrish-Riley that the Chairman of The Council of the MSMS be empowered to appoint a committee to make a study of Michigan Medical Service, the committee to consist of not less than three nor more than 10, to be in so far as possible an impartial body; its report to be made to The Council, which would subsequently report to the House of Delegates. Carried unanimously.

30. *Procurement and Assignment.*—Telegram from Olin West, M.D., Secretary of the AMA, re new blank for procurement of physicians for the armed services was read by Secretary Foster. (See page 143.)

31. *Reports of Councilors.*—Each Councilor was called upon to report on the condition of the profession in his District. The reports, which included problems and questions, were referred to the County Societies Committee for study and report to the Executive Committee of the Council.

32. *Minutes.*—Minutes of the first four sessions of the 1942 Annual Meeting of The Council were read and approved, including the inserted reports, on motion of Drs. Haughey-Moorish. Carried unanimously.

33. *State Narcotic Tax.*—President-elect H. H. Cummings reported that a movement is on foot to repeal the $1 state narcotic tax on physicians. The original purpose was to use the tax money so collected (amounting to approximately $4,000 per year) for education against use of marihuana, but this has not been done. The tax represents double taxation, inasmuch as the physicians also pay a similar Federal license fee.

34. *Social Security Board Plans* to provide a $3.00 per diem subsidy to all hospitalized patients was again presented, by President Carstens, who called upon all councillors to give serious consideration to necessary action that should be taken.

## ELECTIONS

35. *Secretary.*—L. Fernald Foster, M.D., Bay City, was nominated by Doctor Moorish, to succeed himself as Secretary of the MSMS. Motion of Drs. Barstow-Beck that the nominations be closed and that a unanimous ballot be cast for Doctor Foster. Carried unanimously. The executive secretary did so cast.

36. *Treasurer.*—Wm. A. Hyland, M.D., Grand Rapids, was nominated by several to succeed himself as Treasurer of the MSMS. Motion of Drs. Perkins-Sladek, that the nominations be closed and that the Secretary cast a unanimous ballot for Doctor Hyland. Carried unanimously. The Secretary did so cast.

37. *Editor.*—Roy Herbert Holmes, M.D., Muskegon, was nominated by Doctor Haughey, to succeed himself as Editor of THE JOURNAL of the Michigan State Medical Society. Motion of Drs. Beck-Sladek that the nominations be closed and that an unanimous ballot be cast by the Secretary for Doctor Holmes. Carried unanimously. The Secretary did so cast.

38. *Appointment of Executive Secretary.*—Motion of Dr. Huron, seconded by several, that Wm. J. Burns be reappointed as Executive Secretary of the Michigan State Medical Society. Carried unanimously.

Mr. Burns expressed his thanks to the members of The Council and the officers for their counsel and help to him during the past year.

39. *Thanks and Adjournment.*—Chairman A. S. Brunk thanked the members of THE COUNCIL for their attendance and for their excellent and efficient work in helping to make this Annual Meeting of The Council successful. The meeting was adjourned at 2:15 p.m.

## REPORT OF AUDITORS FOR 1941

We have examined the balance sheet of the Michigan State Medical Society as of December 20, 1941, and the statements of income and expense for the fiscal year then ended, have reviewed the system of internal control and the accounting procedures of the Society and, without making a detailed audit of the transactions, have examined or tested accounting records of the Society and other supporting evidence, by methods and to the extent we deemed appropriate. Our examination was made in accordance with generally accepted auditing standards applicable in the circumstances and included all procedures which we considered necessary.

The Society was organized under the laws of the State of Michigan on September 17, 1910, as a corporation not for pecuniary profit. On November 10, 1941, the charter was extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association and charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY.

### Balance Sheet

A summary of the balance sheets at December 20, 1941, follows:

| ASSETS | Dec. 20, 1941 |
|---|---|
| Cash | $22,514.71 |
| Accounts receivable, less reserve | 1,630.87 |
| Securities—at cost, less reserve | $30,674.06 |
| Deferred charges | 282.94 |
| | $55,102.58 |
| **LIABILITIES** | |
| Accounts payable | $ 1,418.00 |
| Unearned income | 4,912.70 |
| Net worth | 48,771.88 |
| | $55,102.58 |

### Income and Expense Statement

A summary of the income and expense statement for the fiscal year ended December 20, 1941, is presented as follows:

| Income: | Dec. 20, 1941 |
|---|---|
| Membership fees | $46,576.78 |
| Income from THE JOURNAL | 2,821.45 |
| Interest received | 997.30 |
| Miscellaneous | 135.60 |
| TOTAL INCOME | $50,531.13 |
| Expenses: | |
| Administrative and general | $21,824.43 |
| Society activities | 9,463.81 |
| Committee expenses | 7,789.12 |
| TOTAL EXPENSES | $39,077.36 |
| EXCESS OF INCOME OVER EXPENSES | $11,453.77 |
| Other income | ..... |
| | $11,453.77 |
| Other expenses | 2,690.30 |
| NET INCOME | $ 8,763.47 |
| Adjustments of reserve for securities | 2,219.78 |
| INCREASE IN NET WORTH | $10,983.25 |

The income from THE JOURNAL and the expenses of the Society are shown in greater detail in separate schedules included herein. As in prior years, $1.50 of each individual's annual membership fee has been allocated to subscription income of THE JOURNAL.

The following comments relate to the accompanying financial statements and to the scope of our examination:

Accounts receivable for advertising, reprints, et cetera, were analyzed and classified as to date of charge and are shown in comparison with a similar classification at December 21, 1940, as follows:

| DATE OF CHARGE | December 20, 1941 Amount | Per Cent |
|---|---|---|
| October, November, and December | $1,022.72 | 94.33% |
| July, August, and September | .... | .... |
| January to June, inclusive | 12.50 | 1.15 |
| Prior to January 1 | 49.00 | 4.52 |
| TOTAL | $1,084.22 | 100.00% |

We tested the balances of accounts receivable at December 20, 1941, by communication with selected debtors. In our opinion, the reserve in the amount of $175.00 is sufficient to care for losses anticipated in the collection of the accounts.

Securities owned at December 20, 1941, were inspected by us in the course of our examination and we accounted for the income therefrom for the year.

The Society has adopted the policy of waiving payment of dues of members in the armed forces of the United States, and in the event the current year's dues were paid, to allow one year's membership without charge at the expiration of service. A provision of $600.00 has been made to defer the income received from those members who have paid 1941 dues. This amount has been estimated, based upon reports from the county societies.

### Opinion

In our opinion, the accompanying balance sheet and related statements of income and expense present fairly the position of the Michigan State Medical Society at December 20, 1941, and the results of its operations for the fiscal year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

ERNST & ERNST,
*Certified Public Accountants*

BALANCE SHEET
MICHIGAN STATE MEDICAL SOCIETY
December 20, 1941

| ASSETS | | | |
|---|---|---|---|
| *Cash* | | | |
| Demand deposits | | $10,169.90 | |
| Office cash fund | | 8.28 | |
| Savings deposits | | 12,336.53 | $22,514.71 |
| *Accounts Receivable* | | | |
| For advertising, reprints, et cetera | $1,084.22 | | |
| From county societies for dues | 75.19 | | |
| | $1,159.41 | | |
| Less reserve | 175.00 | $ 984.41 | |
| From exhibitors, for space at 1942 annual meeting | | 610.50 | |
| From officers and employees, for pay roll taxes of prior years | | 35.96 | 1,630.87 |
| *Securities* | | | |
| Bonds—at cost | | $32,360.28 | |
| Less reserve to reduce to aggregate quoted market prices | | 1,686.22 | 30,674.06 |
| *Michigan Medical Service* | | | |
| Organizational expenditures made by Michigan State Medical Society | | $17,544.45 | |
| Less reserve | | 17,544.45 | ..... |
| *Deferred Charges* | | | |
| Expenses in connection with 1942 activities | | | 282.94 |
| | | | $55,102.58 |

LIABILITIES

| | | |
|---|---|---|
| *Accounts Payable* | | |
| For current expenses, et cetera | $ 1,373.26 | |
| Pay roll taxes | 42.60 | |
| To Dr. William A. Hyland, trustee | 2.14 | $ 1,418.00 |
| *Unearned Income* | | |
| Sale of exhibitors' space at 1942 annual meeting | $ 2,327.20 | |
| Dues for the year 1942 | 1,985.50 | |
| Dues of military members applicable to a future year | 600.00 | 4,912.70 |
| *Net Worth* | | |
| Balance at December 21, 1940 | $37,788.63 | |
| Net increase for the fiscal year ended December 20, 1941 | 10,983.25 | 48,771.88 |
| | | $55,102.58 |

INCOME AND EXPENSE STATEMENT
MICHIGAN STATE MEDICAL SOCIETY
Fiscal year ended December 20, 1941

| | | |
|---|---|---|
| Income: | | |
| Membership fees | $53,229.50 | |
| Less portion allocated to income of The Journal for subscriptions | 6,652.72 | $46,576.78 |
| Income from The Journal—as shown by schedule | | 2,821.45 |
| Interest and dividends: From securities | $ 874.89 | |
| Savings deposits | 122.41 | 997.30 |
| Miscellaneous | | 135.60 |
| TOTAL INCOME | | $50,531.13 |
| Expenses—as shown by schedule: | | |
| Administrative and general | $21,824.43 | |
| Society activities | 9,463.81 | |
| Committee expenses | 7,789.12 | 39,077.36 |
| EXCESS OF INCOME OVER EXPENSES | | $11,453.77 |
| Other deductions: | | |
| Loss on sale of securities | $ 2,070.30 | |
| Provision for deferment of dues paid by military members | 600.00 | |
| Provision for bad debts | 20.00 | 2,690.30 |
| NET INCOME | | $ 8,763.47 |
| Adjustment of reserve for securities: | | |
| Reduction in reserve to reduce securities owned to quoted market prices | | 2,219.78 |
| INCREASE IN NET WORTH | | $10,983.25 |

INCOME FROM "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"
Michigan State Medical Society
Fiscal year ended December 20, 1941

| | |
|---|---|
| INCOME | |
| Subscriptions from members | $ 6,652.72 |
| Other subscriptions | 95.50 |
| Advertising sales | 11,478.38 |
| Reprint sales | 1,182.32 |
| Journal cuts | 371.25 |
| | $19,780.17 |
| EXPENSES | |
| Editor's salary | $ 1,200.00 |
| Editor's expense | 800.00 |
| Printing and mailing | 10,488.16 |
| Cost of reprints | 1,168.06 |
| Allocation of administrative and general expense | 1,800.00 |
| Discounts and commissions on advertising sales | 1,252.50 |
| Postage | 250.00 |
| | $16,958.72 |
| NET INCOME | $ 2,821.45 |

* * *

EXPENSES
MICHIGAN STATE MEDICAL SOCIETY
Fiscal year ended December 20, 1941

| | |
|---|---|
| ADMINISTRATIVE AND GENERAL | |
| Salaries: | |
| Administrative | $11,600.00 |
| Office | 5,100.00 |
| Extra | 1,020.00 |
| Office rent | 1,300.50 |
| Printing, stationery, and supplies | 1,701.00 |
| Postage | 989.52 |
| Insurance and fidelity bonds | 179.81 |
| Auditing | 307.50 |
| New equipment and repairs | 827.71 |
| Telephone and telegraph | 281.78 |
| Michigan sales tax | 125.91 |
| Pay roll taxes | 134.36 |
| Miscellaneous | 56.34 |
| | $23,624.43 |
| Less expenses redistributed to The Journal | 1,800.00 |
| | $21,824.43 |

SOCIETY ACTIVITIES

| | |
|---|---|
| Council expense | $ 3,898.54 |
| Delegates to American Medical Association | 447.80 |
| Secretaries' conferences | 827.32 |
| General society travel expense | 2,626.59 |
| Secretary's letters | 443.33 |
| PUBLICATION EXPENSE | 43.82 |
| Reporting annual meeting | 105.10 |
| Educational expense | 2,000.00 |
| National Conference on Medical Service | 108.75 |
| Organizational | ..... |
| LEGAL EXPENSE | 150.00 |
| Woman's Auxiliary—annual meeting | 200.00 |
| Sundry society expenses | 961.30 |
| Contingent fund | ..... |
| | $11,812.55 |
| Less revenue from annual meeting in excess of cost thereof | 2,348.74 |
| | $ 9,463.81 |

COMMITTEE EXPENSES:

| | |
|---|---|
| Legislation | $ 3,163.42 |
| Distribution of medical care | 28.20 |
| Contribution to joint committee on Public Health Education | 850.00 |
| Postgraduate education | 2,479.87 |
| Preventive medicine | 122.94 |
| Cancer | 368.03 |
| Child welfare | 193.46 |
| Iodized salt | ..... |
| Heart and degenerative diseases | ..... |
| Industrial health | 115.47 |
| Maternal health | 113.39 |
| Mental Hygiene | ..... |
| Radio | ..... |
| Syphilis control | 96.04 |
| Tuberculosis control | 13.36 |
| Public relations | 22.68 |
| Ethics | 12.40 |
| Scientific work | 14.90 |
| Medical preparedness | 101.31 |
| Sundry other committees | 93.65 |
| | $ 7,789.12 |
| TOTAL | $39,077.36 |

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✣

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✣

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### MORE VENEREAL DISEASE REPORTED

From January 1 to December 1 last year, more than 11,000 cases of syphilis and over 8,000 cases of gonorrhea were reported to the Michigan Department of Health. These figures exceeded 1940 totals when 9,999 cases of syphilis and 7,650 cases of gonorrhea were reported. The increases do not necessarily mean more cases of venereal disease in the state, for reporting has improved.

Selective Service examinations played a part in the finding and reporting of more venereal disease cases last year. Draft board medical examinations accounted for 800 reported cases of syphilis during the first ten months of the year.

The Michigan Department of Health distributes the latest drugs free to physicians for venereal disease treatment. In 1941, aldarsone, for the treatment of neurosyphilis, was added to the list distributed by the Department. Other antivenereal disease drugs on the list are: neoarsphenamine, mapharsen, trisodarsen, sulfathiazole, bismuth subsalicylate in oil and double distilled water.

——— MSMS ———

### LABORATORY ACTIVITIES STEPPED UP

For the first 11 months of 1941, the state health laboratories at Lansing, Powers, Houghton and Grand Rapids distributed more than 2,235,000 doses of biologic products to physicians and health officers for the control of disease in Michigan. This was a 10½ per cent increase over the same period in 1940.

The laboratories made more than 683,000 tests and examinations from January 1 to December 1 last year, representing a 31 per cent increase over the 1940 record breaking total. Blood tests for all men called for Selective Service in the state helped to account for the high figure.

——— MSMS ———

### KEEPING HEALTHY IN 1942 A PATRIOTIC DUTY

Keeping healthy in 1942 is the patriotic duty of everyone, says the State Health Department in its press releases to Michigan newspapers. Every man and woman must keep fit for the job they have and for any emergency work that they may be called upon to do.

The time of physicians should be conserved as much as possible. All preventable illness should be prevented. Wherever it is possible to immunize by vaccines, that should be done. Children should be protected by vaccination against smallpox, diphtheria and whooping cough.

Public indifference must be overcome in carrying on preventive work. It is human for any person to feel that while protective measures are all right, they aren't necessary for him. One may say: "I won't be exposed to germs. If I am, I am strong enough to overcome them and throw them off." There is no place for that false assurance today when the nation is at war and needs the full strength of every man and woman.

——— MSMS ———

### WATER SUPPLIES GUARDED

The State Health Department is asking water works operators to take additional measures to protect Michigan's public water supplies against sabotage.

Plants which are chlorinating their water are asked to step up the rate so that a residual of chlorine will be present as an offset against accidental or deliberate pollution. In addition, plant operators are asked to padlock covers to wells and reservoirs, to fence in pumping stations, filtration plants and other structures and to lock exposed valves.

Water works plants in many places in the state began in February last year to restrict visits, at the suggestion of the Michigan Department of Health. There are 400 water works in Michigan, all under supervision of the State Health Department.

——— MSMS ———

### TIRE RATIONING MAY BE BLESSING IN DISGUISE

Physicians who have had only a reluctant response when they have prescribed walking as an exercise for expectant mothers may find it easier to obtain cooperation as a result of tire rationing, says Dr. Alexander MacKenzie Campbell, the State Health Department's consultant in maternal health.

"Tire rationing will mean more walking this year, and that will be good for women who are going to have babies," said Dr. Campbell. "Women can make a virtue out of necessity by walking to the grocery store, to the theater and to church."

Dr. Campbell does not expect rubber rationing to extend to nursing nipples, but he wouldn't mind if it did. Bottle feeding, he said, could be restricted to those babies needing it, and all other babies would have mother's milk.

——— MSMS ———

### MONROE COUNTY TO HAVE NEW HEALTH DEPARTMENT

Monroe County will establish a full-time health department in the spring. The board of supervisors has voted approval and a committee is studying budget needs. Selection of a director will be made with approval of the State Health Department.

When the new health unit is established, Monroe County will be the 66th in the state to have full-time health department services.

——— MSMS ———

### NEW GRANT OF $8,100 FOR DEPARTMENT'S POLIO STUDY

Poliomyelitis research in the Michigan Department of Health laboratories at Lansing has been given a new grant of $8,100 by the National Foundation for Infantile Paralysis.

The money will be used in an elaboration of a study already made by the Department's virus laboratory which showed that blood serum taken from boys and girls who have had poliomyelitis will protect mice for a short time against the Armstrong strain of virus.

The experimental work in the State Health Department's virus laboratory under Dr. S. D. Kramer is the first to show new promise in the use of serum as protection against poliomyelitis.

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### RECEIVES W. J. WILSON AWARD

"Natural Immunity to Diphtheria," a paper based upon a study of diphtheria incidence among children in a State institution, has won for George D. Cummings, a senior student at the Wayne University College of Medicine, the annual Walter J. Wilson award.

Named after the late Walter J. Wilson I, who was a staff member of the college, the award is presented annually to the Wayne student whose paper based upon original research is adjudged the best for the year.

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## THE PRESIDENT'S MESSAGE

Mrs. W. J. Butler

As your newly elected president, I promise you that I shall give the major portion of my time to the business of our auxiliary. You have elected me, and all of you understand the responsibility which the office entails. It is only through the efforts and loyalty of all the members that we can make this year a successful one, and in view of the present situation, this we must do.

### The Doctor's Wife and Defense

Our organized effort is urgently needed in helping with the great program for National Defense. At the American Medical Association convention in Cleveland, it was my privilege to hear leaders of the medical profession and the Woman's Auxiliary appeal to us for help in carrying out their defense program. Dr. Frank H. Lahey, president of the American Medical Association, said, "At the very outset of these turbulent times, the American Medical Association offered its services to the National Government in the way of ascertaining the availability of doctors for service." He urged that the auxiliary members give their full support to America's defense program. Dr. Nathan B. Van Etten, the retiring president of the American Medical Association, said that, "Defense against disease is as important as defense against a foreign military power."

### Auxiliary Program

The American Medical Association has outlined a program for health education and it is our duty as doctor's wives to help in carrying it out. One of our national problems is nutrition. You should have at least one forum on nutrition for your own members. The public has always expected the doctor's wife to know something about "First Aid" work, but, too few of us have had any such training. It is suggested that you incorporate "First Aid" instruction in your program this year. Write to your state chairman for help in obtaining speakers.

### Public Relations

Public meetings on Health Education and Nutrition in Home Defense should be arranged. Speakers can be secured through the speakers bureau of the Michigan State Medical Society and of the Woman's Auxiliary. The latter is under the direction of the State Public Relations Chairman. Coöperation with lay organizations is urged in presenting programs on such subjects as the following: (1) Maternal and Child Welfare; (2) Tuberculosis; (3) Cancer Education; (4) Communicable Diseases; (5) Mental Hygiene; (6) Nutrition.

We also have our local public relations problems which we in our own counties have to work out for ourselves, always keeping in mind that we are an auxiliary and must do those things which are approved by our local medical societies.

### The Bulletin of the Woman's Auxiliary

The bulletin of the Woman's Auxiliary to the American Medical Association is our official magazine and it is essential that all county presidents and chairmen subscribe to it. In fact, it should be of interest to every member of the auxiliary. As Mrs. R. E. Mosiman, our National President, so aptly said, "An informed member is an active and interested one." Subscriptions are $1.00 per year for four issues. Checks should be sent to your local bulletin chairman or to the state chairman, Mrs. John J. Walch, 709 Fifth Avenue South, Escanaba.

### Hygeia

*Hygeia* is the official health magazine of the American Medical Association and it is a very important objective given us by the House of Delegates. Every doctor's wife has a duty and an obligation to perform in helping to preserve the basic principles and ideals of American Medicine. We can do this by sponsoring *Hygeia.*

### Why Become a Member of the Auxiliary

The auxiliary has been on a firm and established basis over a long period of years. Without an organization such as we have any help to the medical society would be scattered and ineffective. It has been able to undertake projects favorable to medicine, which the doctors, with their busy lives cannot get around to do. In many counties, the profession has achieved a closer feeling of unity through social events sponsored by the auxiliaries. Therefore, it is just as important for a doctor's wife to be a member of the auxiliary as it is for her husband to belong to his county and state society and to the American Medical Association.

It was a great inspiration to the officers, the committee chairman and all the members to have Mrs. Mosiman with us for a period of two days at the present state convention, held in Grand Rapids. May I now present to you the new officers and committee chairmen. All the county officers and chairmen should feel free to call upon this group for assistance at any time.

(Mrs. Wm. J.) Irene Linda Butler, *President*

### Officers

President-elect—Mrs. G. L. Willoughby, 5013 N. Saginaw St., Flint
Vice President—Mrs. John J. Walch, 709 Fifth Ave. So., Escanaba
Secretary—Mrs. Henry J. Pyle, 525 Morris Ave., S. E., Grand Rapids
Treasurer—Mrs. H. L. French, 1620 W. Main St., Lansing
Past President—Mrs. Roger V. Walker, 1783 Iroquois Ave., Detroit
Honorary President—Mrs. Guy L. Kiefer, 834 Rosewood Ave., East Lansing

### Committee Chairmen

Archives—Mrs. L. G. Christian, 400 Everett St., Lansing
Bulletin—Mrs. John J. Walch, 709 Fifth Ave. So., Escanaba
Exhibits—Mrs. Fred J. Melges, 314 Orchard Ave., Battle Creek
Finance—Mrs. Elmer L. Whitney, 19519 Shrewsbury Rd., Detroit
Historian—Mrs. J. Earl McIntyre, 600 Grand Ave., Lansing
*Hygeia*—Mrs. Sidney La Fever, 2131 Melrose Ave., Ann Arbor
Legislation—Mrs. Roger V. Walker, 1783 Iroquois Ave., Detroit
Organization—Mrs. Oscar D. Stryker, Fremont
Parliamentarian—Mrs. A. V. Wenger, 132 Grand Ave., Grand Rapids
Press—Mrs. Victor F. Kling, 530 W. Main St., Ionia
Program—Mrs. Galen B. Ohmart, 374 Lodge Dr., Detroit
Public Relations—Mrs. Mark Osterlin, Traverse City
Revisions—Mrs. C. L. Bennett, 527 W. Lovell St., Kalamazoo
Special Committee—Mrs. Paul R. Urmston, 1862 McKinley Ave., Bay City

**100 Per Cent Club for 1942**

Menominee
Muskegon
Sanilac

The above three county medical societies have certified 1942 dues for every member of their respective societies to be the first 100 per cent paid up counties for this year. Michigan State Medical Society dues for 1942 are $12.00.

*A membership record* was established in 1941 when the total number of Michigan State Medical Society members reached an all-time high of 4,621. Of this number forty-three are Emeritus and Honorary Members and eighty-three are Military Members.

*Frederick C. Swartz, M.D.,* Lansing, addressed the Rotary Club of Ionia on Wednesday, January 21. His subject was "The Story of the New Sulfa Drugs."

* * *

*A. R. Dickson, M.D.,* Battle Creek, was elected Secretary-Editor of Calhoun County Medical Society to fill the vacancy left by the resignation of Sherwood B. Winslow, M.D., also of Battle Creek.

* * *

*Remember Pearl Harbor!*—According to the monthly report of efficient County Medical Society Secretary E. B. Anderson, M.D., of Iron Mountain, Harry H. Haight, M.D., who was president of the Dickinson-Iron County Medical Society in 1941 and now serving with the Marines, escaped injury during the bombing of Pearl Harbor.

* * *

*Wm. Bromme, M.D.,* Detroit, is the author of an article appearing in the *Journal of the American Medical Association,* issue of December 20, 1941, entitled "Gonorrheal Urethritis."

Frank H. Bethell, M.D., Ann Arbor, wrote "Lymphogenous Leukemia" which appeared in the JAMA issue of January 10, 1942.

* * *

*Major John G. Slevin,* medical officer for the Michigan Military Area since September 3, 1940, with offices in Detroit, was promoted to chief of surgical service at Camp Grant, Illinois, effective January 5, 1942. Major Slevin is a member of the Michigan State Medical Society and a member of the Medical Preparedness Committee, MSMS.

* * *

The Kalamazoo Academy of Medicine reports that the permanent induction officers at the Kalamazoo Center have been called away on foreign duty and no replacements are in sight. Local civilian physicians have been invited to volunteer for Induction Center duty, five days a week. The Government will pay civilians for this work at the rate of $15.00 per diem.

* * *

*The American Congress on Obstetrics and Gynecology* will hold its next meeting in St. Louis on April 6-10,


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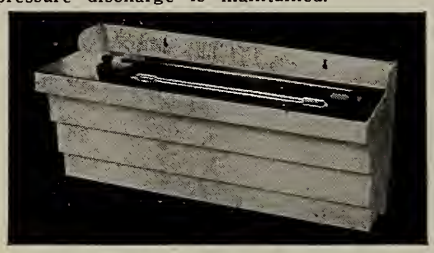

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1942. The Directors of the project believe that notwithstanding the war situation, the Congress should be held at the stated time and are proceeding with plans to make this an outstanding gathering of those interested in the welfare of mothers and babies of the nation. Information re the program may be had by writing the headquarters at 650 Rush Street, Chicago, Illinois.

* * *

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Jones Metabolism Equipment Company, Chicago, Illinois

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember *your friends* when you have need of equipment, medical supplies, appliances or service.

* * *

**SIXTH DISTRICT MEETING HELD**

The Sixth District met at Flint on January 13, 1942, R. S. Morrish, M.D., Councilor. MSMS officers attending included Councilor W. E. Barstow, M.D., St. Louis; Council Chairman A. S. Brunk, M.D., and President Henry R. Carstens, M.D., Detroit; President-Elect H. H. Cummings, M.D., Ann Arbor; Secretary L. Fernald Foster, M.D., Bay City; and Executive Secretary Wm. J. Burns.

Subjects forming the basis of the discussions of the evening included (a) The MSMS Journal, (b) County Society Meetings, (c) Ethics, (d) Medical Welfare, and (e) Medical Preparedness.

* * *

**THE FOUNDATION PRIZE IN OBSTETRICS, GYNECOLOGY AND ABDOMINAL SURGERY**

Rules governing the award of "The Foundation Prize" of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons are as follows:

(1) The award which shall be known as "The Foundation Prize" shall consist of $150.00.

(2) Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal surgery.

(3) Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.

(4) Manuscript must be limited to 5,000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis.

(5) The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the Journal of the Author's choice. Unsuccessful contributions will be returned promptly to their authors.

(6) Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the Secretary before June 1.

(7) The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The



*Say you saw it in the Journal of the Michigan State Medical Society*

successful contestant must meet all expenses incident to this presentation.

(8) The President of the Association shall annually appoint a Committee on Award, which, under its own regulations, shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting.

Communications concerning the contest should be addressed to Jas. R. Bloss, M.D., Secretary, 418 Eleventh Street, Huntington, W. Va.

* * *

## NATIONAL CONFERENCE ON MEDICAL SERVICE

**Sunday, February 15, 1942**

PROGRAM

*Morning Session—9:00 A.M.*

1. The Relation of the Physician to Military, Civilian and Industrial Health
   (1) Procurement and Assignment of Physicians for Military Service
   Sam F. Seeley, M.D., Executive Officer, Procurement and Assignment Service, Washington, D. C.
   (2) Civilian Defense
   (a) Civilian
   (b) Hospitals
   (c) Emergency Medical Squads
   Graham L. Davis, Hospital Consultant, W. K. Kellogg Foundation, Battle Creek, Michigan
   (3) Industry's Problem in Maintaining Adequate Medical Care
   (a) Nondefense Projects
   John R. Nilsson, M.S., Chief Surgeon, Union Pacific Railroad, Omaha, Nebraska
   (b) National Defense Projects
   W. D. Norwood, M.D., Medical Director, du Pont Company, Elwood Ordnance Plant, Joliet, Illinois

2. The Role of the State Medical Society and State and City Departments of Health in National Defense
   (1) State Medical Society
   W. P. Wherry, M.D., President, Nebraska State Medical Society, Omaha, Nebraska
   (2) State Department of Health
   W. L. Bierring, M.D., State Health Officer of Iowa, Des Moines, Iowa
   (3) City Department of Health
   Herman N. Bundesen, M.D., President, Board of Health, Chicago, Illinois

*Dinner*—12:15 p.m.

*Afternoon Session—1:30 P.M.*

3. President's Address—Harold M. Camp, M.D., Monmouth, Illinois

4. Report of Nominating Committee; Annual Election of Officers; Selection of Place for 1943 Meeting

5. Rejected Selectees and Their Rehabilitation for Active Military Service
   (1) Local and Induction Board Examinations
   Samuel J. Kopetzky, M.D., New York City
   (2) One Million Rejected; What Percentage May Be Salvaged?

**Main Entrance**

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J. R. Blayney, D.D.S., Chicago, Illinois

(b) Following Induction
L. D. Redway, M.D., Ossining, N. Y.

6. The Role of the Medical, Dental, Nursing Schools and Hospitals in Anticipating the Acceleration of Training

(1) The Need for a Trained Personnel to Care for the Health of the Military
J. R. Darnall, M.D., Lt. Colonel, Medical Corps, Washington, D. C.

(2) Status of Premedic, Medic and Dental Students, Internships and Residencies During the Emergency
Leonard Rountree, M.D., Chief, Medical Division, Selective Service System, Washington, D. C.

(3) What the Medical, Dental and Nursing Schools May Do to Hasten the Graduation of Their Respective Students
Fred C. Zapffe, M.D., Chicago, Illinois

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## AMERICAN CONGRESS OF OBSTETRICS AND GYNECOLOGY

In this time of stress, there should be a definite interest in the welfare of the mothers and babies of the nation. The committee which is sponsoring the next American Congress on Obstetrics and Gynecology, to be held in St. Louis on April 6-10, 1942, represents the only organization outside of governmental bodies which has attempted to unite the efforts of voluntary and other agencies to carry out the widely disseminated plans for the care of women and children. Opportunity for the presentation of advances in obstetric and gynecologic knowledge will be afforded to the many groups interested in these problems at a nation-wide gathering of this kind. The Directors of the project believe that, notwithstanding the war situation, the Congress should be held at the stated time and are proceeding with their plans to make of this an outstanding gathering. Further details of the program will be communicated as these are made available. Inquiries may be addressed to the Central Office, 650 Rush Street, Chicago, Illinois.

## IN MEMORIAM

**Harold J. Hammond** of Detroit was born in Elkhart, Indiana, in 1898, and was graduated from the Wayne University College of Medicine in 1927. Doctor Hammond served two years in France during the World War. He was past commander of Red Arrow post, No. 361, American Legion, and a past vice commander of the Detroit District American Legion. Following an illness of two years, Dr. Hammond died December 23, 1941, in the United States Veterans' Facility at Dearborn, Michigan.

**Merle Pierson** of Detroit was born April, 1891, in Clinton, Iowa, and was graduated from the University of Michigan Medical School in 1922. Doctor Pierson was a member of the Detroit Society of Pediatrics, the Detroit Branch of the American Academy of Pediatrics and the Blackwell Medical Society, the Medical Executive Board of Woman's Hospital and the attending physician at Children's Hospital and Liggett School. She died following a short illness at Woman's Hospital, December 20, 1941.

## READING NOTICES

### BORDENS AID RHEUMATIC FEVER STUDY

An award of $1,000 to assist the outstanding work done by Irvington House, of Irvington-on-Hudson, N. Y., in the study and treatment of rheumatic fever, has been made by the Borden Company.

The sum was presented recently at a meeting of the directors of the institution by William Callan, Vice President of the Borden Company and also a director of Irvington House.

The researches, conducted under direction of Dr. Ann G. Kuttner, Resident Medical Director, with the guidance of a Medical Advisory Board, of which Dr. J. Murray Steele, Director of the Third Medical Division, Welfare Hospital, New York City, is chairman, have made Irvington House outstanding in this field.

Known as "The House of Mending Hearts," it houses about one hundred young, underprivileged patients. Its work on rheumatic heart disease, and its high standard for the care of patients have brought to Irvington House great distinction as an experimental heart-saving sanatorium and training center.

As an educational spearhead, Irvington House has been particularly energetic in bringing to the attention of the public how great the menace of rheumatic heart disease is. The United States Public Health Service regards this disease as one of the great American perils.

Specialized care and supervised living are provided for many months for underprivileged children afflicted with the ailment, so that they may be fortified in body and spirit to assume their rightful rôles as useful citizens.

### HOW TO GIVE COD LIVER OIL

What Every Woman Doesn't Know is that psychology is more important than flavoring in persuading children to take cod liver oil. Some mothers fail to realize, so great is their own distaste for cod liver oil, that most babies will not only take the oil if properly given, but will actually enjoy it. Proof of this is seen in orphanages and pediatric hospitals where cod liver oil is administered as a food in a matter of fact manner, with the result that refusals are rarely encountered.

The mother who wrinkles her nose and "makes a face" of disgust as she measures out cod liver oil is almost certain to set the pattern for similar behavior on the part of her baby.

Most babies can be taught to take the pure oil if, as Eliot points out, the mother looks on it with favor and no unpleasant associations are attached to it. If the mother herself takes some of the oil, the child is further encouraged.

The dose of cod liver oil may be followed by orange juice, but if administered at an early age, usually no vehicle is required. The oil should not be mixed with the milk or cereal feeding unless allowance is made for the oil which clings to the bottle or the bowl.

On account of its higher potency in vitamins A and D, Mead's Cod Liver Oil Fortified With Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

### SQUIBB NOW PACKAGES DIPHTHERIA TOXOIDS ACCORDING TO NEW RECOMMENDED DOSAGES

Following the recommendation of the Committee on Administrative Practice of the American Public Health Association of two doses of diphtheria toxoid alum precipitated, or three doses of diphtheria toxoid, for immunization against diphtheria, E. R. Squibb & Sons,


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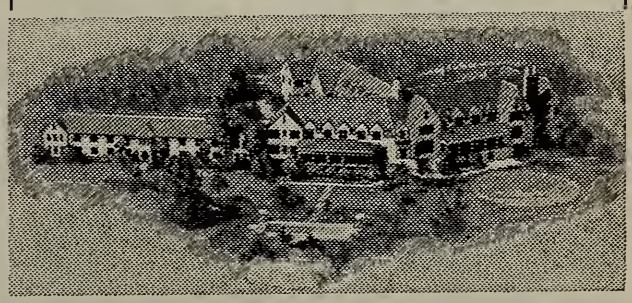

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**As London underwent its terrible bombing ordeal of last year, the resuscitating value of CORAMINE, "Ciba" was again dramatically proven. As noted by Charles Hill, Deputy Secretary of the British Medical Association, CORAMINE "is being used more and more for those suffering from heart failure."** First aid posts, mobile units, field and base hospitals are equipped with CORAMINE for speedy stimulation of failing cardiac and respiratory systems.**

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**CIBA PHARMACEUTICAL PRODUCTS, INC.**
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New York, are now supplying Diphtheria Toxoid Alum Precipitated Squibb in two-dose packages and Diphtheria Toxoid (Ramon) Squibb in three-dose packages.

The new recommended dosages are the outgrowth of comprehensive studies which have shown conclusively that a higher percentage of children receiving 2 x 1 c.c. doses of diphtheria toxoid alum precipitated, or three doses of diphtheria toxoid, will be subsequently Shick-negative, than those children to whom only 1 c.c. of diphtheria toxoid alum precipitated or 2 x 1 c.c. of diphtheria toxoid—the heretofore commonly used dosages—is administered.

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### MEAD'S MEDICAL SPORTS REVIEW

The very interesting publication of Mead Johnson & Company devoted to the sport and recreation activities of doctors of medicine throughout the United States reproduced ten of the beautiful colored wildlife stamps issued by the National Wildlife Federation, Washington, D. C. The magazine is full of pictures of doctors enjoying their favorite pastimes which include playing "rogue," flying, fishing, hunting, shooting, archery, tennis and golf.

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### AMINO ACIDS FOR PARENTERAL AND ORAL USE ADDED TO STEARNS LINE

Culminating the research which has been under way for several years in the Biochemical Research Laboratories of Frederick Stearns & Company, Amino Acids-Stearns is now being introduced to the medical profession.

Based upon the literature, the opinions of well-recognized authorities and the results of carefully controlled research, a product has been prepared that may be administered orally, subcutaneously, intramuscularly and intravenously. A method for chemical standardization has been developed whereby the physician and patient can be assured of a constant product. Each lot is proven safe for injection.

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### THE HIPPOCRATIC OATH IN AN INCREASINGLY UNMORAL WORLD

Once upon a time the Hippocratic Oath was in itself sufficient to insure ethical practice because of its appeal to religious scruples and moral responsibility.

Today, drastic laws are almost the only means whereby the misconduct of physicians can be controlled.

Several thousand physicians in New York State are alleged by a lay organization engaged in propaganda for euthanasia to favor its legalization. But suppose it is legalized and some doctors act to implement it by proceeding to kill some appellants? The Hippocratic Oath would then, as a mere counsel of idealistic perfection, lose its old moral force completely.

In such circumstances, what meaning would the gesture of imposing the Oath upon groups of newly fledged physicians possess? How many of the neophytes and their sponsors would take and administer the vows with fingers crossed?

If and when euthanasia goes into effect will the Oath go into desuetude, as we have insisted, or will it be revised to conform with the lowered "standards" and weird "ethics" which increasingly promise to characterize the new order that looms menacingly before us?

Truly, when misconduct becomes good conduct the confusion of today will be worse confounded. We shall then have wholly accepted the ideology which we now profess to be fighting.—*Medical Times,* December, 1941.

# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

INFANT NUTRITION. A Textbook of Infant Feeding for Students and Practitioners of Medicine. By Williams McKin Marriott, B.S., M.D., Late Professor of Pediatrics, Washington University School of Medicine; Physician in Chief, St. Louis Children's Hospital, St. Louis. Revised by P. C. Jeans, A.B., M.D., Professor of Pediatrics, College of Medicine, State University of Iowa, Iowa City. Third edition. St. Louis: The C. V. Mosby Company, 1941. Price: $5.00.

Jeans has added his name to the third edition of the well known contribution by Marriott. He has continued in basing his writings on scientific fundamentals and has added, among other changes, the results of the extensive research in nutrition which has been completed in the past six years. The volume is printed on green tinted paper in large type with excellent typography and organization. It is recommended to the pediatrician as well as to the general practitioner.

DISEASES OF WOMEN. By Harry Sturgeon Crossen, M.D., F.A.C.S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to De Paul Hospital and the Jewish Hospital, Fellow of the American Gynecological Society and of the Central Association of Obstetricians and Gynecologists; and Robert James Crossen, A.B., M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine, Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Assistant Gynecologist to the St. Louis Children's Hospital; Gynecologist and Obstetrician to St. Luke's Hospital and to De Paul Hospital; Fellow of the Central Association of Obstetricians and Gynecologists; Diplomate of American Board of Obstetrics and Gynecology. Ninth Edition, entirely revised and reset. With eleven hundred twenty-seven engravings, including forty-five in color. St. Louis: The C. V. Mosby Company, 1941. Price: $12.50.

This is the ninth edition of the original text written in 1907. The advances of the past six years in the study of physiology are applied. Endocrine activities and histological advances make necessary this new edition. The typography is excellent; the illustrations numerous and well chosen. It is recommended to the general practitioner as a textbook in gynecology.

THE TREATMENT OF INFANTILE PARALYSIS IN THE ACUTE STAGE. By Elizabeth Kenny. St. Paul: Bruce Publishing Company, 1941. Price: $3.50.

Perhaps no medical book of 1941 has aroused so much interest in the profession. The author, a nursing sister from Australia, became convinced in 1933 that the spasm of infantile paralysis was a damaging and ever present symptom. Within eight years she has been able to convince many physicians of the soundness of her theory and the efficacy of its application. The volume is profusely illustrated. The typography is excellent and it is recommended to all who must care for these patients.

MEDICAL DISEASES OF WAR. By Sir Arthur Hurst, M.A., D.M., Oxon., F.R.C.P., Lieutenant-Colonel, Late R.A.M.C.; Lecturer on Clinical Medicine, University of Oxford, and Consulting Physician to Guy's Hospital; Late Officer Commanding Seale Hayne Hospital for Functional Nervous Disorders, Member of Medical Advisory Committee, Mediterranean Expeditionary Force, and Consulting Physician to the Salonica Army. With the coöperation of H. W. Barber, M.A., M.B., Cantab., F.R.C.P., Physician-in-Charge of the Skin Department, Guy's Hospital; H.B.F. Dixon, M.C., M.D., Dub., D.T.M. and H., F.R.C.P., Lieut.-Colonel (temporary Colonel) R.A.M.C.; F. A. Knott, M.D., Lond., M.R.C.P., Bacteriologist to Guy's Hospital; T. A. Ross, M.D., Edin., F.R.C.P., Late Medical Director of Cassel Hospital for Functional Nervous Disorders; and Arnold W. Stott, M.A., Cantab., F.R.C.P., Colonel R.A.M.C., Late Consulting Physician to the British Expeditionary Force; Physician to Westminster Hospital. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1941. Price: $5.50.

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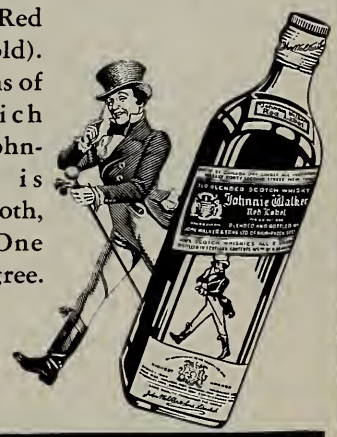

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This is an English book. It is the second edition of which the first was published in 1916. Approximately half of the volume is taken up discussing various forms of hysteria. It is plainly and rather completely written and contains much information of value to the civil as well as the army physicians. The typography is good and it is interestingly written.

RHEUMATIC FEVER IN NEW HAVEN. Edited by John R. Paul, M.D., Professor of Preventive Medicine, Yale University School of Medicine. Lancaster, Pa.: The Science Press Printing Company, 1941. Price: $1.00.

Here is an inclusive, thorough, multiphased investigation of htis condition in New Haven, Connecticut. The quest is to determine what kind of disease is rheumatic fever. The deductions and the mechanism of their investigation makes a really worth-while report.

FROM CRETIN TO GENIUS. By Dr. Serge Voronoff. New York: Alliance Book Corporation, 1941. Price: $2.75.

Voronoff, who became famous by grafting monkey glands to the human body, asks questions such as "Does the brain itself think, or is it made to think?" "Can matter think?" "Does the soul always intervene?" In a series of chapters he discusses the attainment of intelligence from cretin to genius. The typography is good and the material is inspiring. It is recommended to the philosopher physician.

MOTHER AND BABY CARE IN PICTURES. By Louise Zabriskie, R.N., Director, Maternity Consultation Service, New York City; Formerly Night Supervisor Lying-in-Hospital, New York City; and Field Director, Maternity Center Association, New York City. Second Edition, revised, entirely reset. 204 illustrations. Philadelphia: J. B. Lippincott Company, 1941. Price: Cloth, $1.50; Paper, $1.00.

With a minimum number of words the author portrays by many well-chosen illustrations, photographs, charts, and drawings the care of the mother and the baby. The advice is unusually sound and the approach is ethical. It is recommended for distribution to the modern parents.

TREATMENT OF THE PATIENT PAST FIFTY. Ernest P. Boas, M.D., Associate Physician, Mount Sinai Hospital, New York City; Chairman, Committee on Chronic Illness, Welfare Council of New York City; Assistant Clinical Professor of Medicine, Columbia University. Chicago: The Year Book Publishers, Inc., 1941. Price: $4.00.

This contribution to the practice of geriatrics is essentially a summary of diagnosis and care of conditions most commonly found among the older patients. It is not well illustrated but the lack of verbosity compensates. This book should be of interest to all general practitioners.

NUTRITIONAL DEFICIENCIES. Diagnosis and Treatment. By John B. Youmans, A.B., M.S., M.D., Associate Professor of Medicine and Director of Postgraduate Instruction, Vanderbilt University Medical School, Nashville, Tennessee. Assisted by E. White Patton, M.D. 16 illustrations. Philadelphia: J. B. Lippincott Company, 1941. Price: $5.00.

An able man has written a needed book. About two-thirds of the volume deals with the vitamin deficiencies. It is complete without being cumbersome. The illustrations are few but significant. The typography is good. It is recommended to the general practitioner.

FUNCTIONAL PATHOLOGY. By Leopold Lichtwitz, M.D., Chief of the Medical Division of the Montefiore Hospital; Clinical Professor of Medicine, Columbia University, New York. New York: Grune & Stratton, Inc., 1941. Price: $8.75.

The author interprets actual findings in functional changes, at the bedside and in the laboratory, by considering not the single organ but the organism as a whole. He breaks down the regulation of the function according to stimulation and response; feeling that the study of these phenomena is necessary for diagnostic analysis as well as for therapy. His treatment of this subject is somewhat unusual but is thought-provoking. The typography is excellent.

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### Surgical Experience

The accompanying chart shows the incidence of surgery among subscribers to the Michigan Medical Service Surgical Benefit Plan. There is some distortion from month to month because of late reporting, but this gives an accurate picture of the amount of surgery within this group and its seasonal variation.

Upon an examination of this chart, several things are apparent. First, the surgeon's belief that the surgical load is heaviest during the summer is confirmed, at least for this group. In both 1940 and 1941, the most surgery was done during the months of July and August. In both years, the least surgery was done during the months of February and March. When the enrollment of Michigan Medical Service becomes more stable, it is expected that the incidence of surgery will assume a definite pattern and may be predicted upon a smooth curve with the lowest point in February and the highest point in August.

Another important point to note is that more surgery is being done within the group of subscribers to Michigan Medical Service than in the general public. The incidence of surgery in the general public is 3.3 cases per thousand people a month. That of subscribers to Michigan Medical Service is 9.5 cases per thousand people per month.

### Three Times More Surgery

The reason for this tremendous amount of surgery has not yet been determined. It cannot be explained by saying that Michigan Medical Service solicited unusually sick groups or that only those employes enrolled who knew they were going to require surgery. The enrollment requirements of Michigan Medical Service are equal to those of the commercial insurance companies and these companies have not had this experience. One explanation, which at this time is considered tenable, is that people in the income class for which Michigan Medical Service was designed can not afford anything except emergency surgery and would rather defer treatment than accept charity or impose upon their doctor.

At any rate, the fact remains that doctors are doing three times the surgery on subscribers to Michigan Medical Service than is being done on the general population, and they are being paid for every service instead of losing a large percentage of their income as uncollectible accounts receivable.

### Surgical

| Month | Number of Patients | Number of Persons Entitled to Services | Number of Patients Per 1,000 Persons Enrolled |
|---|---|---|---|
| *1940* | | | |
| March | 405 | 58,450 | 6.9 |
| April | 442 | 59,735 | 7.4 |
| May | 431 | 61,204 | 7.0 |
| June | 374 | 63,010 | 5.9 |
| July | 513 | 63,647 | 8.1 |
| Aug. | 538 | 64,373 | 8.3 |
| Sept. | 401 | 64,252 | 6.2 |
| Oct. | 514 | 69,870 | 7.3 |
| Nov. | 626 | 92,191 | 6.8 |
| Dec. | 675 | 102,017 | 6.6 |
| *1941* | | | |
| Jan. | 911 | 119,262 | 7.6 |
| Feb. | 812 | 126,051 | 6.4 |
| March | 532 | 60,593 | 8.7 |
| April | 748 | 69,274 | 10.8 |
| May | 840 | 76,597 | 11.0 |
| June | 1,954 | 181,731 | 10.7 |
| July | 2,780 | 186,675 | 14.9 |
| Aug. | 3,284 | 187,360 | 17.5 |
| Sept. | 1,952 | 196,530 | 9.9 |
| Oct. | 1,547 | 200,000 | 7.7 |
| Nov. | 2,450 | 438,000 | 5.6 |
| Dec. | 2,931 | 444,000 | 6.6 |
| | 25,659 | 2,984,642 | 9.5 |

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"Education for Death—The Making of the Nazi" is a revealing, startling new book that accounts for Germany's Children of Today. It is by Gregor Ziemer who, as director of the American Colony School in Berlin, witnessed the training of the young Nazis. Reviewing the book in the *New York Times,* Boris Erich Nelson writes: "Why this insatiable hunger for power? Why this frenzy over that 'queer mixture of mysticism and brutality' called Hitlerism? The answers to these and many other questions are quite simple: The State robs the cradle—i.e., the State controls the young even before their actual birth." The book, he goes on, is "a truthful portrayal of the immense, foul machinery that makes German girls (who pray to Horst Wessel, 'the notorious pander, as the deity of Fecundity') breeders for Hitler, and German boys killers-for-Hitler. . . . With these our own American new generation will have to deal in order to survive."

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# MEDICAL PREPAREDNESS

Physicians may anticipate a rapid expansion of the armed service and a corresponding acceleration in the demands for medical personnel to meet these rapidly growing needs. In general, every man under 45 who is physically fit should volunteer for active service, if he is now or can be made available. It is expected that the present needs of the armed services for medical personnel will be filled by those under 45, although applications will be considered from physicians up to the age of 60.

Within a few weeks, every physician in the nation will receive an enrollment form from the office of the Procurement and Assignment Service. On this form all will be asked to volunteer for service in military, governmental, industrial, or civil agencies requiring their services for the duration of the war. Each will be asked to designate a first, second, third and fourth choice of the many agencies requiring assistance.

### Requirements for Commissions

For a commission in the Army, applicant must be between 21 and 60; an American citizen; graduate of Class A Medical School; licensed to practice in a state of the U. S.; actively engaged in the ethical practice of medicine; able to pass the required physical examination.

For a commission in the Navy, an applicant must be a graduate of a Grade A Medical School; an American citizen (for a period of 10 years); member of a local medical society; licensed physician in some state of the U. S.; must pass Navy physical examination. For a general service commission, maximum age is 34 years (commissions available: Lieut. Jr. Grade, and Lieutenant. Limited number of commissions available in the specialists' classification

*(Continued on Page 184)*

**RETURN OF MEDICAL PREPAREDNESS QUESTIONNAIRES**

To February 6, 1942

| | |
|---|---|
| *Allegan | 24 |
| *Alpena-Alcona-Presque Isle | 21 |
| Barry | 4 |
| *Bay-Arenac-Iosco | 79 |
| Berrien | 41 |
| Branch | 13 |
| *Calhoun | 121 |
| Chippewa-Mackinac | 14 |
| *Clinton | 13 |
| Delta-Schoolcraft | 5 |
| *Dickinson-Iron | 26 |
| *Eaton | 26 |
| Genesee | 176 |
| *Gogebic | 42 |
| *Grand Traverse-Leelanau-Benzie | 46 |
| Gratiot-Isabella-Clare | 27 |
| *Hillsdale | 27 |
| Houghton-Baraga-Keweenaw | 29 |
| *Huron | 15 |
| *Ingham | 170 |
| Ionia-Montcalm | 25 |
| *Jackson | 113 |
| *Kalamazoo | 110 |
| *Kent | 294 |
| Lapeer | 6 |
| *Livingston | 18 |
| Luce | 1 |
| *Macomb | 44 |
| *Marquette-Alger | 38 |
| Mason | 2 |
| *Mecosta-Osceola | 18 |
| Med. Soc. of North Central Co. | 19 |
| *Monroe | 46 |
| *Muskegon | 80 |
| *Newaygo | 11 |
| *Northern Michigan | 39 |
| *Oakland | 147 |
| *Oceana | 11 |
| Ottawa | 26 |
| *Sanilac | 22 |
| Shiawassee | 1 |
| *St. Clair | 48 |
| *St. Joseph | 29 |
| *Tuscola | 25 |
| *Van Buren | 26 |
| Wexford-Missaukee | 11 |
| Wayne | 1 |
| TOTAL | 2,130 |

*Counties having 100 per cent returns, or nearly 100 per cent. Of the forty-seven counties from which returned questionnaires have been received, thirty have returned approximately 100 per cent.

**Pay Rates, Plus Allowances**

(Approximate Figures)

| | Base Pay | Plus Allowances | |
|---|---|---|---|
| | | With Depts. | No Depts. |
| First Lieut. (Army) or Lt. Jr. Grade (Navy | $166.67 | $ 96.00 | $58.00 |
| Captain (Army) or Lieutenant (Navy) | 200.00 | 116.00 | 78.00 |
| Major (Army) or Lt. Commander (Navy) | 250.00 | 154.00 | 78.00 |
| Lt. Colonel (Army) or Commander (Navy) | 291.67 | 174.00 | 98.00 |
| Colonel (Army) or Captain (Navy) | 333.33 | 156.00 | 98.00 |

*Pneumonia deaths will continue to decrease steadily with this most promising Sulfonamide . . .*

# SULFADIAZINE
## *Lederle*

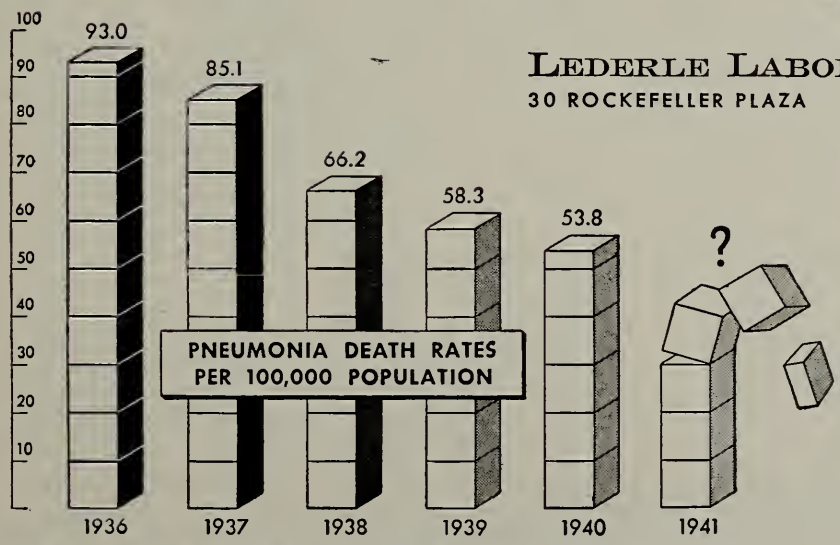
THE VALUE OF SULFAPYRIDINE AND SULFATHIAZOLE in the treatment of pneumococcal pneumonias has been impressively demonstrated by extensive clinical use. Sulfadiazine, the newest of the famous sulfonamide family, shows even greater promise. The ideal sulfonamide would be flexible in its method of administration, non-toxic to the host, devoid of sensitivity effects and would be therapeutically active against a wide range of common infecting agents. Although a perfect sulfonamide is unlikely of attainment, it is believed that sulfadiazine possesses distinct advantages in the treatment of certain conditions. CECIL[1] has expressed the opinion that clinically sulfadiazine is the best of the antipneumococcal drugs.

Recently clinical workers[2] have confirmed the results of earlier investigators[3] that sulfadiazine is equal in therapeutic efficiency to sulfapyridine or sulfathiazole in the treatment of pneumococcal pneumonia; is rapidly absorbed from the gastro-intestinal tract; the blood levels obtained are usually higher than with comparable doses of sulfapyridine and sulfathiazole; and excretion takes place slowly. All these factors coupled with the *infrequency of nausea and vomiting* tend to reassure both patient and physician.

Experimentally[4] sulfadiazine has been shown to compare favorably with sulfanilamide in its action against streptococci. The excellent therapeutic activity of the drug against experimental[5] hemolytic streptococcal and Friedlander's bacillus Type B infections has encouraged the clinical trial of sulfadiazine in these infections.

PACKAGES:
50 tablets, 7.7 grains (0.5 gram)
100 tablets, 7.7 grains (0.5 gram)
1000 tablets, 7.7 grains (0.5 gram)
5 grams powder (for standard solution only)

Sodium Sulfadiazine *Lederle*
(Powder)
1-5 gram bottle
6-5 gram bottles




BASED ON PUBLIC HEALTH REPORTS: 52:591 (May 7) 1937; 53:709 (May 6) 1938; 55:213 (Feb. 2) 1940; 56:1107 (May 23) 1941 56:1516 (July 25), 1941; 56:2015 (Oct. 10) 1941.

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

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2. DOWLING, H. F., et al; J. A. M. A. 117:824 (Sept. 6) 1941.
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**SULFADIAZINE IS MANUFACTURED IN BULK BY OUR AFFILIATE — CALCO CHEMICAL DIVISION OF AMERICAN CYANAMID COMPANY**

*(Continued from Page 182)*

— age limit 21 to 50 years. Commissions available: Lieut. Jr. Grade, Lieutenant, and Lieutenant-Commander).

### Needs of the Armed Forces

For the present Army of 1,570,000, a shortage of 1,437 medical officers exists. A 500,000 increase in the Army within 90 days means that another 3,257 medical officers will be needed. Seven hundred will be procured from this state.

Seven thousand medical officers are needed for every additional million soldiers, or approximately 375 to 400 additional physicians from Michigan for each million men.

The Navy will need an additional 700 men from the entire country by July 1, 1942.

All commissions in the Army and Navy are granted for the duration of the war and automatically terminate six months thereafter.

All men of draft age (including physicians between 21 and 44) are still liable for Army duty (Selective Service) if they do not make application for appointment to commissions.

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### LOCAL CHIEFS OF EMERGENCY MEDICAL SERVICE

The following names have been reported since January 12, 1942, up to and including February 12, 1942 (see previous list on page 106, February JOURNAL):

*Barry*—J. K. Altland, M.D., Hastings.
*Berrien*—A. F. Bliesmer, M.D., St. Joseph.
*Dickinson County (Dickinson-Iron)*—E. B. Andersen, M.D., Iron Mountain.
*Gogebic*—D. C. Eisele, M.D., Ironwood.
*Baraga (Houghton-Baraga-Keweenaw)*—Frank F. Marshall, M.D., L'Anse.
*Ingham*—Milton Shaw, M.D., 320 Townsend, Lansing.
*Montcalm (Ionia-Montcalm)*—Wm. Bird, M.D., Greenville.
*Kalamazoo*—Homer H. Stryker, M.D., Borgess Hospital, Kalamazoo.
*Alger (Marquette-Alger)*—H. B. McCrory, M.D., Munising.
*Osceola (Mecosta-Osceola-Lake)*—P. B. Kilmer, M.D., Reed City.
*Muskegon*—Leland E. Holly, M.D., 876 North Second Street, Muskegon.
*Northern Michigan*—
*Antrim*—J. Van Dellen, M.D., Ellsworth.
*Cheboygan*—John Gilpin, M.D., Cheboygan.
*Emmett*—Dean C. Burns, M.D., Petoskey.
Coördinator appointed by County Medical Society to work with chiefs of four counties: Wesley Mast, M.D., Petoskey.
*Oakland*—John S. Lambie, M.D., 280 Aspen Road, Birmingham.
*Oceana*—Charles Flint, M.D., Hart.
*St. Clair*—W. A. Schaefer, M.D., 302 Michigan National Bank Bldg., Port Huron.
*St. Joseph*—F. D. Dodrill, M.D., Three Rivers.
*Sanilac*—Weldon A. Gift, M.D., Marlette.

### MEDICAL MEMBERS OF COUNTY MEDICAL ADVISORY COUNCILS

The following have been reported since January 12, 1942, up to and including February 12, 1942 (see previous list on page 106, February JOURNAL):

*Alpena*—E. S. Parmenter, M.D., Alpena; and H. J. Burkholder, M.D., Alpena.
*Dickinson (Dickinson-Iron)*—E. B. Andersen, M.D., D. R. Smith, M.D., and Alexander Witkow, M.D., all of Iron Mountain.
*Gogebic*—D. C. Eisele, M.D., and C. C. Urquhart, M.D., Ironwood.
*Baraga (Houghton-Baraga-Keweenaw)*—Frank F. Marshall, M.D., L'Anse; R. S. Buckland, M.D., Baraga.
*Montcalm (Ionia-Montcalm)*—Wm. Bird, M.D., Greenville, and Lee E. Kelsey, M.D., Lakeview.
*Kalamazoo*—Homer H. Stryker, M.D., Borgess Hospital; Alfred F. Way, M.D., Bronson Hospital; and I. W. Brown, M.D., Health Department, Kalamazoo.
*Alger (Marquette-Alger)*—H. B. McCrory, M.D., Munising, and C. C. Benjamin, M.D., Health Department.
*Osceola (Mecosta-Osceola-Lake)*—P. S. Kilmer, M.D., Reed City; S. N. Seltzer, M.D., Marion; J. Bruggema, M.D., Evart; V. J. McGrath, M.D., Reed City; Geo. W. Brooks, M.D., Tustin; and Clifton Hall, M.D., Health Department, Big Rapids.
*Muskegon*—C. N. Colignon, M.D., R. H. Holmes, M.D., V. S. Laurin, M.D., P. E. Medema, M.D., R. Sears, M.D., E. S. Thornton, M.D., and C. A. Tiefer, M.D., of Muskegon.
*Northern Michigan*—
*Antrim County*—J. Van Dellen, M.D., Ellsworth.
*Cheboygan*—John Gilpin, M.D., Cheboygan; James Stringham, M.D., Cheboygan, and Joseph Winter, M.D., Cheboygan.
*Emmet*—Dean C. Burns, M.D., Petoskey.
*Oceana*—Charles Flint, M.D., and W. Gordon Robinson, M.D., of Hart.
*St. Clair*—W. A. Schaefer, M.D., 302 Michigan National Bank Bldg., Port Huron; and K. B. LeGalley, M.D., Port Huron.
*St. Joseph*—F. D. Dodrill, M.D., Three Rivers, and D. M. Kane, M.D., Sturgis.
*Sanilac*—W. A. Gift, M.D., Marlette, and Vida H. Gordon, M.D., Sandusky.

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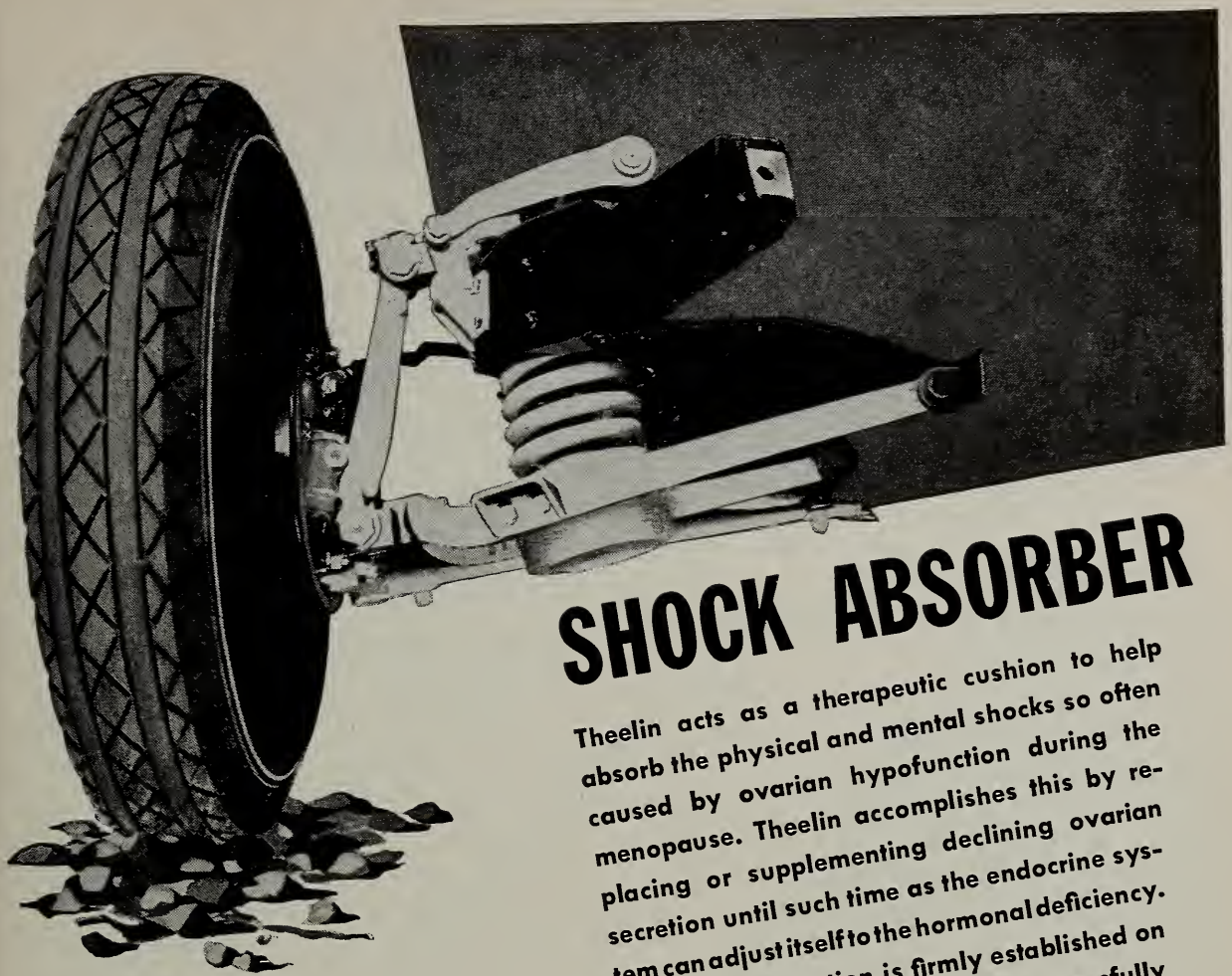
*Compensation and Medical Care for Injuries Sustained by Volunteer Civilian Defense Workers in Line of Duty.*—H.R. 6316, introduced by Representative Martin J. Kennedy, New York, January 7, a bill to provide compensation for injuries or death sustained by volunteer civilian defense workers in the line of duty, pending in the House Committee on the Judiciary.

*Comment.*—This bill provides that the United States shall pay compensation for the disability or death of any air raid warden or other volunteer worker engaged in the work of civilian defense resulting from a personal injury sustained in the performance of his duty during the present war, other than injury or death caused by willful misconduct or by his intention to bring about the injury or death of himself or of another or if intoxication of such person is the proximate cause of the injury or death. The bill also provides that for any injury sustained by an air raid warden or other volunteer worker engaged in civilian defense while in the performance of duty, whether or not disability has arisen, the United States shall furnish to the injured person all services, appliances, and supplies prescribed or recommended by duly qualified physicians which, in the opinion of the Commission, are likely to cure or to give relief or to reduce the degree or period of disability or to aid in lessening the amount of the monthly compensation, in accordance with the provisions of the United States Employes' Compensation Act.—*Reported by the Bureau of Legal Medicine and Legislation, American Medical Association.*



# SHOCK ABSORBER

Theelin acts as a therapeutic cushion to help absorb the physical and mental shocks so often caused by ovarian hypofunction during the menopause. Theelin accomplishes this by replacing or supplementing declining ovarian secretion until such time as the endocrine system can adjust itself to the hormonal deficiency. Its clinical reputation is firmly established on the basis of millions of doses successfully used. Indications: the climacteric, senile vaginitis, kraurosis vulvae, gonorrheal vaginitis in children, and certain other conditions due to estrogenic insufficiency. Theelin was the first estrogen to be isolated in pure crystalline form. Each lot is physiologically and chemically standardized before release by the laboratories of Parke, Davis & Company and by the Biochemical Laboratory of St. Louis University. Theelin Suppositories for vaginal use and Kapseals Theelol for oral administration are available where sustained therapy between injections is desired.

Ampoules **THEELIN*** and Kapseals **Theelol***

products of modern research offered to the medical profession by

**PARKE, DAVIS & COMPANY** DETROIT, MICHIGAN

OVER SEVENTY-FIVE YEARS OF SERVICE TO MEDICINE AND PHARMACY

*Reg. U. S. Pat. Off.

# PREMARITAL EXAMINATION LAW

## Report of the MSMS Syphilis Control Committee

The Syphilis Control Committee received a statistical analysis of the Premarital Examination Law from F. J. Weber, M.D., of the State Department of Health, at its last meeting. Some interesting facts were reported as follows:

Eighty-three thousand persons examined under this law in 1941. Positive Kahns including doubtful Kahns were 1.22 per cent. Of these positive Kahns 303 applications were made to the Commissioner of Health of the State of Michigan for special certification. Some 235 special licenses were issued, 68 or 22.5 per cent being refused.

The Committee spent some hours discussing with Dr. Weber some of the most common reasons given for requesting special licensure. The following were the most common reasons for special licensures, with the recommendations of the Syphilis Control Committee as to disposition of cases coming under these categories.

*1. Congenital Syphilis:*

The Committee recommended that a special license could not be issued unless supporting evidence of this diagnosis was submitted such as:

(a) Stigmata of Congenital Syphilis

(b) Syphilis of Parents or Sibling proven, etc.

*2. Existence of Pregnancy:*

While the Committee felt that it would be advisable to have these girls married, the law in its present form does not permit a special license unless the mother had had a minimum standard treatment. If the case is seen during the first few months of pregnancy a minimum standard treatment may be completed in time to have a special license and marriage before delivery. In case of mothers seen late in pregnancy there is no method under the present law for securing a special license for marriage. Treatment in such a case should be given to protect the child and after sufficient treatment has been given, a license to marry may be issued even though it must be put off until after delivery.

The minimum treatment for these cases recommended by the Committee is a course of ten injections of an arsenical and ten injections of a heavy metal.

*3. The Common Law relationship or frequent sexual intercourse* are often offered as evidence of non-infectiousness when one party has a positive Kahn and the other a negative Kahn.

The Committee felt that while these facts may support the non-infectiousness of the disease this does not completely satisfy the requirements of the law and therefore further evidence must be submitted.

*4. The existence of elaborate completed marriage plans:*

The law makes no provision for this circumstance and so definite evidence of inability to transmit the disease to marital partner or offspring must be submitted for special certification.

Further impediments to marriage occasionally encountered were also discussed but no action was taken since they were adequately covered under the law.

---

### TELEPHONE ETIQUETTE

As we respond to a phone call, the voice at the other end of the line is heard to say:

"This is Dr. X's secretary. Will you hold the line a minute? Dr. X wants to talk with you."

And then we wait a minute—or two minutes—or possibly more.

This happens frequently to all of us. We doodle for a minute or two while busy Dr. X comes to the telephone after his secretary has made the contact. It would be more courteous if Dr. X had made the call himself, doodled for a little while waiting for us, and then greet us personally when we spoke into the receiver. It would have flattered us if he had assumed that we were as busy as he, or that our time was worth as much as his.

Relatively speaking, this is a small matter. How our telephone contacts are made will never change the course of history, but in a world in which courtesy is little thought of any more, it would be gracious to do the waiting on your end of the telephone line, rather than let a colleague's nerves become frayed while waiting for you at the other end of the line.—C. P. P. in *The Bulletin of The Columbus Academy of Medicine.*

# THE FRONT LINE IS ON MAIN STREET

All-out efforts for a successful conclusion of hostilities demand the hands, brains and hearts of every American. Maintenance of maximum efficiency requires a healthy, well-nourished body. Our men in the armed forces are assured of nutritionally balanced meals, but, the folks at home also need proper nourishment so that they can do their jobs . . . so important to the men in the field.

COCOMALT, daily, is an excellent "defense" addition to meals. More and more, physicians are recommending this delicious drink for the entire family. This enriched food drink contains vitamins A, $B_1$ and D as well as the minerals, calcium, phosphorus and iron.

A New Clinical Study has again shown the value of COCOMALT in therapeutic diets. Have you sent for your copy of "The Use of a Malted Food Preparation as a Dietary Supplement in Pulmonary Tuberculosis"?

**Cocomalt** *Enriched Food Drink*

**R. B. DAVIS COMPANY • Hoboken, N. J.**

# ✶ HALF A CENTURY AGO ✶

## THE PAST, PRESENT, AND FUTURE OF GYNECOLOGY

A. W. ALVORD, M.D.
Battle Creek, Michigan

* * * * To prophesy what gynecology will be in the future must of necessity be largely hypothetical. But to some of us who have some reform, is so great that nothing short of a revolution will answer them. State medicine has come to mean that care of the health of the community shall prevent disease. In the honorable practice of our profession, physicians have learned to vie with each other in their fealty to the principles of state medicine. Although his unselfish labor for the public good is calculated to lessen his income, he is true to his ideas of duty even when frequently meeting with rebuff. In no department of medicine is this more true than in gynecology — the vicious habits of dress furnish no small share of the causes of functional and organic disease in woman. Those who listened to the elaborate address by Dr. Kellogg last year on the abnormal change of form in the average American lady, with resulting injuries to her health, need no added stimulant to rid themselves of so pernicious a habit of dress, no doubt. But let me urge those less fortunate to listen to your medical adviser and act on his advice, feeling sure you will be abundantly repaid in health and happiness.

Among the earnest needs of our specialty is an improved profession. The knotty problems continually being presented to the gynecologist require an educated brain and a well trained hand. Standing on a platform to which advancing age has assigned us, it is with great pleasure that we observe the increased demand for scholarly physicians. The universities and medical colleges are responding with increased requirements for graduation, and we hope at no distant day to see the state take such an interest in the lives and health of her citizens that she will compel a high grade of preparation for the practice of medicine in all its departments. We believe that none should attempt the study of medicine until clothed with a liberal academic education. Then operators will have skill which nothing but the confidence born of knowledge will confer. With a demand made less by an increased intelligence among the people, an improved physique bettered by lopping off the fungoid growths of social life, the development of a higher grade of nerve, muscle, and glandular tissue thus made possible, and a faithful observance of the laws of hygiene and proper nutrition, the work of the gynecologist will be simplified and he will become greatly skilled in his art. Lives will be saved and suffering prevented beyond computation. In that happy future when all forms of sepsis shall be robbed of its terrors, and painless wounds shall heal by first intention; when nervous phenomena of every type shall be fully understood and readily controlled; when every city shall have its hospitals freed of every nidus of infection and every disturbing element; when atmospheres shall be manufactured that are most favorable to the needs of the sick room, and electricity shall do our bidding in destroying disease and recuperating the vitality of our patients; when only competent surgeons, specially prepared for their work, shall attempt difficult or dangerous operations; then the happiest days of the invalid's life will be those cheerfully spent under the care of the gynecologist, laying aside the burden of her ills, and rising to the full performance of life's tasks, made doubly sweet by reason of hope renewed and inspiration conferred. Taking her accustomed place in the home, the center of every joy and the brightest illumination of every hearth, her happiness will be complete.

---

The number of persons whose pulmonary tuberculosis has been arrested through the aid of thoracoplasty is steadily increasing. They will require medical surveillance for the rest of their lives. They are not immune to other diseases. Since any doctor may be called on for advice, it is desirable that all members of the profession be familiar with the changes in the thorax which are brought about by thoracoplasty.—*Tuberculosis Abstracts,* February, 1942.

# Benzedrine Sulfate in Mild Depressions

The physician in general practice, as well as the specialist, encounters many patients suffering from mild depressions. With such patients, there is ample evidence in the literature that Benzedrine Sulfate therapy will often produce some or all of the following effects:

(a) Increased mental activity and interest.

(b) Optimism, cheerfulness, euphoria, increased self-assurance and sense of well-being.

(c) Psychomotor stimulation; increased interest, motor activity and accessibility.

(d) Increased feeling of energy and alertness; increased capacity for physical and mental effort.

In many patients, depression may occur as an accompaniment of some more fundamental pathology, either organic or psychogenic. In such cases, the physician should bear in mind that while Benzedrine Sulfate will not affect the underlying condition, its stimulatory effects may help to alleviate the depression which so often interferes with the management of the case. It is primarily useful in depressions characterized by apathy and psychomotor retardation, but is contraindicated in patients manifesting anxiety.

**Benzedrine Sulfate Tablets**

Brand of amphetamine sulfate

The use of Benzedrine Sulfate by normals should not be permitted; it should always be administered under the careful supervision of a physician; and depressive psychopathic cases should be institutionalized.

In treating depressed patients with Benzedrine Sulfate, the physician should bear in mind that any drug which produces pleasant or euphoric effects may prove to be habit forming—especially in unstable or neurotic individuals.

**SMITH, KLINE & FRENCH LABORATORIES**

***PHILADELPHIA, PA. — ESTABLISHED 1841***

# COUNTY SECRETARIES' CONFERENCE

A record attendance of county medical society secretaries at the Annual Secretaries' Conference was chalked up at the 1942 session of January 25 in Lansing. Forty-four of the fifty-five secretaries came from all parts of the state to hear a number of interesting talks on problems of vital import to the medical profession of Michigan. Represented in the total registration of 170 were eleven county medical society presidents, ten officers and councilors of the State Society, and twenty-six guests.

At the morning program, at which E. B. Andersen, M.D., of Iron Mountain, presided, A. S. Brunk, M.D., of Detroit, Chairman of the M.S.-M.S. Council, presented a progress report on Michigan Medical Service; Hazen J. Payette, LL.B., of Detroit, outlined the new Federal Income Tax as it affects physicians; L. A. Potter, Lansing, Inspector of the State Department of Health, spoke on "Unity"; M. C. Smith of Lincoln, Executive Secretary of the Nebraska State Medical Association, presented a "Design for a State-wide Farm Security Administration Medical Program"; and Major A. A. Holmes of the Selective Service spoke on Procurement and Assignment of Physicians. Eugene A. Osius, M.D., Detroit, Secretary of the Wayne County Medical Society, led a very spirited discussion period.

The State and County Health Officers joined the Secretaries for a noon-day dinner and the afternoon program at which Henry R. Carstens, M.D., Detroit, President of the State Society, presided.

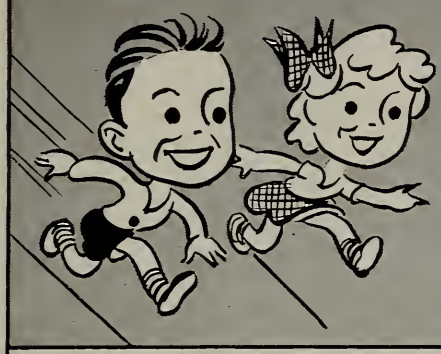
"England's Civilian Defense — An Eyewitness Account," was presented by Don Leonard, Captain of the Michigan State Police and now assigned to the Michigan Council of Defense. Harold A. Furlong, Lt. Colonel, M.C., Lansing, Director of the Michigan Council of Defense, spoke on "Emergency Medical Service in Community Defense." A new sound-color motion picture on "Syphilis Control" closed the afternoon meeting. D. C. Bloemendaal, M.D., secretary of the Ottawa County Medical Society, was elected as chairman of the secretaries for the coming year.

Among those present were:

**County Secretaries**

| | *Name* | *City* | *County Society* |
|---|---|---|---|
| 1. | E. B. Johnson, M.D. | Allegan | Allegan |
| 2. | Harold Kessler, M.D. | Alpena | Alpena-Alcona-Presque Isle |
| 3. | R. G. Finnie, M.D. | Hastings | Barry |
| 4. | L. Fernald Foster, M.D. | Bay City | Bay-Arenac-Iosco |
| 5. | James Bailey, M.D. | Bronson | Branch |
| 6. | A. R. Dickson, M.D. | Battle Creek | Calhoun |
| 7. | L. J. Hakala, M.D. | Sault Ste. Marie | Chippewa-Mackinac |
| 8. | T. Y. Ho, M.D. | St. Johns | Clinton |
| 9. | E. B. Andersen, M.D. | Iron Mountain | Dickinson-Iron |
| 10. | B. P. Brown, M.D. | Charlotte | Eaton |
| 11. | John S. Wyman, M.D. | Flint | Genesee |
| 12. | Ben B. Bushong, M.D. | Traverse City | Grand Traverse-Leelanau-Benzie |
| 13. | John MacNeal, M.D. | Hillsdale | Hillsdale |
| 14. | Roy R. Gettel, M.D. | Kinde | Huron |
| 15. | R. J. Himmelberger, M.D. | Lansing | Ingham |
| 16. | John J. McCann, M.D. | Ionia | Ionia-Montcalm |
| 17. | Horace Wray Porter, M.D. | Jackson | Jackson |
| 18. | Hazel R. Prentice, M.D. | Kalamazoo | Kalamazoo |
| 19. | Frank L. Doran, M.D. | Grand Rapids | Kent |
| 20. | H. M. Best, M.D. | Lapeer | Lapeer |
| 21. | Duncan A. Cameron, M.D. | Brighton | Livingston |
| 22. | Sidney Franklin, M.D. | Newberry | Luce |
| 23. | D. Bruce Wiley, M.D. | Utica | Macomb |
| 24. | C. L. Grant, M.D. | Manistee | Manistee |
| 25. | Chas. A. Paukstis, M.D. | Ludington | Marquette-Alger |
| 26. | Glenn Grieve, M.D. | Big Rapids | Mecosta-Osceola-Lake |
| 27. | C. G. Clippert, M.D. | Grayling | North Central |
| 28. | Wm. S. Jones, M.D. | Menominee | Menominee |
| 29. | H. H. Gay, M.D. | Midland | Midland |
| 30. | Florence Ames, M.D. | Monroe | Monroe |
| 31. | Thomas J. Kane, M.D. | Muskegon | Muskegon |
| 32. | W. H. Barnum, M.D. | Fremont | Newaygo |
| 33. | A. F. Litzenburger, M.D. | Boyne City | Northern Michigan |
| 34. | Donald Smith, M.D. | Pontiac | Oakland |
| 35. | V. W. Jensen, M.D. | Hart | Oceana |

*(Continued on Page 192)*



# "Apples, Mom... APPLES!"

## is the Children's War Cry

AND A healthy war cry, too . . . when children call for apples! Read what one well known dietitian says about the healthful qualities of apples:

**Dr. Thelma Porter,* in a Speech Before the Michigan State Horticultural Society Says:**

"Raw apples, when included in the daily meals of children and adults, provide stimulation and exercise to the gums and teeth, furnish some Vitamin C, supply alkaline mineral salts and provide the digestive tract with bland, non-irritating bulk.

"Apples, scraped, cooked or dried, have been a sovereign remedy for generations in the treatment of intestinal disorders, and at the present time are rather extensively used in therapeutic diets."

*Taken from the Sixty-Ninth Annual Report of the Secretary of the State Horticultural Society of Michigan for the year 1939.*

*Research Associate in Foods and Nutrition, Michigan State College, at present associated with Division of Health and Nutrition, F.S.A., Washington, D. C.

**Apples furnish Vitamins, Minerals, Pectin, Non-Irritating Bulk. Good for you . . . and good to eat.**

**MICHIGAN STATE APPLE COMMISSION**
LANSING, MICHIGAN

*Nature Smiles on* **MICHIGAN** *Apples*

**FOR JUICE . . . FLAVOR . . . HEALTH**

*(Continued from Page 190)*

| | *Name* | *City* | *County Society* |
|---|---|---|---|
| 36. | R. J. Shale, M.D. | Ontonagon | Ontonagon |
| 37. | D. C. Bloemendaal, M.D. | Zeeland | Ottawa |
| 38. | R. S. Ryan, M.D. | Saginaw | Saginaw |
| 39. | E. W. Blanchard, M.D. | Deckerville | Sanilac |
| 40. | J. H. Burley, M.D. | Port Huron | St. Clair |
| 41. | John W. Rice, M.D. | Sturgis | St. Joseph |
| 42. | F. J. Gugino, M.D. | Reese | Tuscola |
| 43. | E. A. Osius, M.D. | Detroit | Wayne |
| 44. | B. A. Holm, M.D. | Cadillac | Wexford-Missauke |

## Presidents, County Societies

| | | | |
|---|---|---|---|
| 1. | A. B. Gwinn, M.D. | Hastings | Barry |
| 2. | Robert Fraser, M.D. | Coldwater | Branch |
| 3. | W. B. McWilliams, M.D. | Maple Rapids | Clinton |
| 4. | D. R. Wright, M.D. | Flint | Genesee |
| 5. | O. M. Randall, M.D. | Lansing | Ingham |
| 6. | H. H. Stryker, M.D. | Kalamazoo | Kalamazoo |
| 7. | Leon Sevey, M.D. | Grand Rapids | Kent |
| 8. | D. J. O'Brien, M.D. | Lapeer | Lapeer |
| 9. | Harold C. Hill, M.D. | Howell | Livingston |
| 10. | F. D. Dodrill, M.D. | Three Rivers | St. Joseph |
| 11. | Dean W. Myers, M.D. | Ann Arbor | Washtenaw |

## Councilors and Officers, MSMS

| | *Name* | *City* | *Position* |
|---|---|---|---|
| 1. | Henry R. Carstens, M.D. | Detroit | President |
| 2. | H. R. Cummings, M.D. | Ann Arbor | President-Elect |
| 3. | P. L. Ledwidge, M.D. | Detroit | Speaker of House |
| 4. | A. S. Brunk, M.D. | Detroit | Chairman: Exec. Comm. |
| 5. | Vernor M. Moore, M.D. | Grand Rapids | Exec. Comm. |
| 6. | Wilfrid Haughey, M.D. | Battle Creek | Exec. Comm. |
| 7. | E. F. Sladek, M.D. | Traverse City | Exec. Comm. |
| 8. | W. E. Barstow, M.D. | St. Louis | Councilor |
| 9. | L. J. Johnson, M.D. | Ann Arbor | Councilor |
| 10. | A. H. Miller, M.D. | Gladstone | Councilor |

Others who honored the Conference with their presence were:

| | |
|---|---|
| H. S. Collisi, M.D. | Grand Rapids |
| J. S. DeTar, M.D. | Milan |
| Robert J. Douglas, M.D. | Muskegon |
| Lloyd S. Dunkin, M.D. | Greenville |
| I. W. Greene, M.D. | Owosso |
| J. Bates Henderson, M.D. | Sebewaing |
| W. G. Hutchinson, M.D. | Birmingham |
| V. F. Kling, M.D. | Ionia |
| J. D. Laux | Detroit |
| Harry Lipson | Detroit |
| Wm. W. Norris, M.D. | Portland |
| C. W. Oakes, M.D. | Harbor Beach |
| Chas. B. Pillsbury, M.D. | Ypsilanti |
| Fred R. Reed, M.D. | Three Rivers |
| Allen Shoenfield | Ann Arbor |
| D. R. Smith, M.D. | Iron Mountain |
| A. W. Strom, M.D. | Hillsdale |
| F. F. Tallman, M.D. | Lansing |
| W. Westrate, M.D. | Holland |
| G. H. Wood, M.D. | Reed City |
| C. C. Young, Dr.P.H. | Lansing |
| H. B. Zemmer, M.D. | Lapeer |
| James A. Bechtel | Detroit |
| Donald R. Brasie, M.D. | Flint |
| Wm. F. Buell, M.D. | Sturgis |
| Sara M. Burgess | Flint |

### NEW ARMY IN EXCELLENT HEALTH

It should be a source of great public satisfaction that the health of America's new army is being maintained at a high level. This reflects both the careful selection of the men and the high quality of the medical supervision and care provided for them. While no separate figures are collected for the recent selective service men, they have come to form so much the greater part of the forces in service in the United States that, more and more, the current sickness experience of the army applies to them in particular.

For several months now—from April to August, 1941—the total rate of admission to "sick report" for disease has run appreciably lower than in the corresponding period of 1918. The current experience is even more favorable when we consider that military training now makes greater physical demands than a generation ago. Moreover, soldiers are now encouraged to report illnesses, however minor, to prevent their becoming serious as a result of complications; in fact, some of the disorders now recorded would not usually cause absence from work in civilian life.—*Statistical Bulletin*, Metropolitan Life Insurance Company, September, 1941.

# WE'VE MADE IT MORE *Convenient* AND *Economical* TO USE *Amniotin*...

THERE'S little question about the effectiveness of Amniotin in relieving menopausal symptoms . . . that's been proved by a great number of clinical reports published during the past twelve years. Amniotin has also proved effective in other conditions related to deficiency of estrogenic hormone . . . senile vaginitis . . . kraurosis vulvae . . . pruritus vulvae . . . gonorrheal vaginitis in children.

Important to users of estrogens is the fact that Amniotin is now available in 10-cc. and 20-cc. diaphragm-capped vials. These new "bulk packages" provide two advantages . . . economy and convenience. The wide variation in requirements of women with menopausal symptoms can be met by simply withdrawing the proper dosage from the vial. The new vial packages provide a substantial saving over the cost of Amniotin in ampuls . . . without sacrifice of activity, uniformity or stability.

Differing from estrogenic substances containing or derived from a single crystalline factor, Amniotin is a highly purified, noncrystalline preparation of naturally occurring estrogenic substances derived from pregnant mares' urine. Its estrogenic activity is expressed in terms of the equivalent of International units of estrone.

## HOW SUPPLIED

**AMNIOTIN IN OIL—For Intramuscular Injection**

2,000 I.U. per 1 cc. ampul, boxes of 6, 25, 50
5,000 I.U. per 1 cc. ampul, boxes of 6, 50
10,000 I.U. per 1 cc. ampul, boxes of 3, 25, 50
20,000 I.U. per 1 cc. ampul, boxes of 3, 25.

***Economy Sizes—***
10 cc. vial—10,000 I.U. per cc.
20 cc. vial— 2,000 I.U. per cc.

**AMNIOTIN PESSARIES—For Intravaginal Use**

1,000 I.U. each, boxes of 12 (Children)
2,000 I.U. each, boxes of 6 and 50 (Adults)

**AMNIOTIN CAPSULES—For Oral Administration**

1,000 I.U. per capsule—
boxes of 20 and 100 capsules
2,000 I.U. per capsule—
boxes of 20 and 100 capsules
4,000 I.U. per capsule—
boxes of 20 and 100 capsules
10,000 I.U. per capsule—
boxes of 20 and 100 capsules

*For literature write Professional Service Dept., E. R. Squibb & Sons, 745 Fifth Ave., N. Y.*

**Amniotin** A SQUIBB PREPARATION OF ESTROGENIC SUBSTANCES OBTAINED FROM THE URINE OF PREGNANT MARES

## ACUTE APPENDICITIS—A TWENTY-FIVE YEAR STUDY

The deaths from acute appendicitis occur, as is well known, in patients in whom peritonitis has already developed when they first reach the hospital. Early diagnosis and avoidance of catharsis through education both of the laity and the profession remains as important today as it was twenty-five years ago. Today, however, strict attention to the details of pre-operative and post-operative management, including fluid and electrolyte balance, use of chemotherapy, and gastro-intestinal syphonage is saving lives that would previously have been lost. Hospital morbidity in severe cases is cut down by the general use of the McBurney incision, less frequent drainage of the peritoneal cavity, and partial closure of the wound by leaving the skin open. More lives will be saved, however, through early diagnosis and early treatment than by any improvement in surgical technique and surgical management.—Elliott C. Cutler, M.D., and Stanley O. Hoerr, M.D., Boston, Massachusetts. (See page 203.)

## PATHOGENESIS OF ACIDOSIS AND ALKALOSIS

In almost all instances the immediate cause of an abnormality of reaction in the blood plasma is a change in the plasma bicarbonate from its normal value. This change in bicarbonate is, however, always secondary to change in some other part or parts of the electrolyte structure of the plasma. Illustrations of structural defects caused by various conditions of disease and the resulting change in bicarbonate are given. The frequency of volume change (dehydration) along with reaction change (acidosis or alkalosis) is explained and the therapeutic implications are discussed.—James L. Gamble, M.D., Boston, Massachusetts. (See page 210.)

## UVEITIS

The various parts of the uveal tract are so intimately related that hardly, if ever, is any one part affected without involvement of all or nearly all of the whole tract. More and more, since the general use of the slit lamp, is this observed; so much so that specific diagnoses as iritis, cyclitis, or irido cyclitis are seldom justified. Often we see evidence of uveal change, especially disturbance of the pigment, which is hard to classify as either a noninflammatory degenerative process or a low grade, chronic uveitis. With routine examination with the slit lamp chronic uveitis is so frequently seen that probably many instances in which glaucoma or other disease is diagnosed as primary are actually secondary to chronic uveitis.—Alfred Cowan, M.D., Philadelphia, Pa. (See page 216.)

## CEREBRAL ATROPHY IN INFANTS AND CHILDREN

The causes of mental deficiency, spastic diplegia and convulsive disorders long obscure, have been clarified for a considerable percentage of cases by consideration of the effects of anoxia on the brain and by studies of the air encephalogram. Heredity is now found to play a much smaller part than had been previously supposed, and the same is true of intracranial hemorrhage at birth. It is, however, a mistake to believe that all cases date from the time of birth. Both fetal and postnatal disorders are of etiological importance. A series of cases is reviewed in which the causative factors are discussed. Some preventive suggestions are presented.—Harold K. Faber, M.D., San Francisco. (See page 221.)

## PLASTIC SURGERY OF THE NOSE

The etiological types of nasal deformity are stated with a discussion of the selection of cases for operation. A brief description is made of the method of anesthesia, of surgical technique, and of postoperative care. Consideration is given to the question of when to do submucous resection in connection with the plastic procedure.

A group of representative cases is shown by use of photographs and short case reports.—D. F. Weaver, M.D., Detroit. (See page 229.)

### ALPHA OMEGA ALPHA CHAPTER TO BE INSTALLED

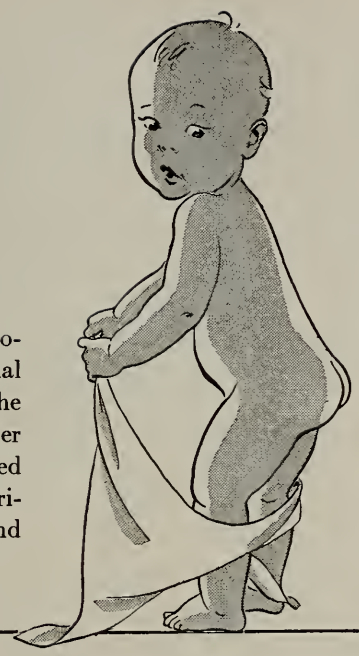
Dr. Walter L. Bierring, a prominent Des Moines physician and past president of the American Medical Association, installed a Wayne University chapter of Alpha Omega Alpha, honor medical society, at a 7:00 P.M. formal dinner February 19 in the Statler Hotel. Besides Dr. Bierring, who is the fraternity's national president, Dr. J. J. Moore, of Chicago, the national secretary, was present.

Maintenance by a medical school of high scholastic standards over a period of years is generally accepted as the criterion upon which granting of a charter is based.

Ten prominent physicians who are members of the Wayne University faculty and not already members of chapters in other universities formed the nucleus of the new Wayne group. Future membership will come from the class of senior students each June, the highest ranking ten per cent being eligible.

Dr. Merritte W. Ireland, Wayne alumnus and surgeon general of the United States, retired, presided at the dinner. An address was presented by Dr. Louis B. Wilson, of Rochester, Minn., emeritus director of the Mayo Foundation.

# No Lack in Biolac!



WITH THE sole exception of vitamin C, Biolac provides completely for the formula needs of normal infants throughout the entire bottle period. From the time when infants consume a full quart of formula per day, here's how certain essential food factors supplied by Biolac feedings compare with the minimal nutritional requirements recognized by the U. S. Food and Drug Administration.

| | MINIMAL REQUIREMENTS | BIOLAC FEEDINGS |
|---|---|---|
| PROTEIN (gms./lb. body weight) | 1.4 to 1.8* | 2.2† |
| CALCIUM (gms./day) | 1.0* | 1.0 |
| IRON (mgms./100 calories) | 0.75 | 1.25 |
| VITAMIN A (U.S.P. Units/day) | 1500. | 2500. |
| VITAMIN $B_1$ (U.S.P. Units/day) | 83. | 85. |
| VITAMIN $B_2$ (mgms./day) | 0.5 | 2. |
| VITAMIN D (U.S.P. Units/100 calories) | 50. | 63. |

*The Food & Drug Administration has not promulgated minimum requirements for protein and calcium in infancy. The values shown are those recommended by the National Nutrition Conference.

†When Biolac formulas are fed in the amount of 2½ fl. oz./lb. body weight.

Biolac is prepared from whole milk, skim milk, lactose, vitamin $B_1$, concentrate of vitamins A and D from cod liver oil, and ferric citrate. Evaporated, homogenized, *sterilized.*

**Borden's BIOLAC**

**A BORDEN PRESCRIPTION PRODUCT**

## COUNCIL AND COMMITTEE MEETINGS

1. Heart and Degenerative Diseases Committee—Thursday, January 29, 1942—Wardell Hotel, Detroit—6:00 p.m.
2. Child Welfare Committee—Wednesday, February 4, 1942—Hotel Olds, Lansing—5 p.m.
3. Syphilis Control Committee—Sunday, February 8, 1942—Hotel Olds, Lansing—4 p.m.
4. Medical Preparedness Committee—Monday, February 9, 1942—Michigan Union, Ann Arbor—6:30 p.m.
5. Child Welfare Committee—Thursday, February 12, 1942—Hotel Olds, Lansing—5 p.m.
6. Executive Committee of The Council—Thursday, February 19, 1942—Hotel Olds, Lansing—3:00 p.m.
7. Maternal Health Committee—Thursday, February 19, 1942—Hotel Olds, Lansing—noon.
8. Preventive Medicine Committee—Thursday, February 26, 1942—Wardell Hotel, Detroit—6 p.m.
9. Syphilis Control Committee—Sunday, March 1, 1942—Hotel Olds, Lansing—4 p.m.

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, February 1, 1942—Bay City—Speaker: T. N. Horan, M.D., Detroit—Subject: "Laparoscopy" illustrated with colored motion pictures.

*Calhoun*—Tuesday, February 3, 1942—Battle Creek—Speaker: Richard H. Freyberg, M.D., Ann Arbor—Subject: "A Discussion of Some Recent Therapeutic Procedure for Chronic Arthritis."

*Dickinson-Iron*—Thursday, February 5, 1942—Spread Eagle—Program by W. H. Huron, M.D., Councilor; D. R. Smith, M.D., member of MSMS Public Relations Committee; and E. B. Andersen, M.D., Chairman of the County Society Secretaries Conference.

*Genesee*—Tuesday, January 27, 1942—Flint—Business Meeting—Speaker: M. S. Chambers, M.D., Flint—Subject: "Myocardio Failure."

Tuesday, February 10, 1942—Flint—Smoker.

*Hillsdale*—Thursday, January 22, 1942—Hillsdale—Speaker: Frank Rector, M.D., Lansing—Subject: "The Cancer Problem in Michigan."

*Ionia-Montcalm*—Tuesday, February 10, 1942—Belding—Speaker: Fred P. Currier, M.D., Grand Rapids—Subject: "The Psychology of Dictatorships."

*Jackson*—Tuesday, January 20, 1942—Jackson—Round-table Discussion on Heart Disease by Douglas Donald, M.D., Robert L. Novy, M.D., Richard M. McKean, M.D., and Edward D. Spalding, M.D., all of Detroit.

*Kalamazoo*—Tuesday, January 20, 1942—Kalamazoo—Speaker: Alvin Price, M.D., Detroit—Subject: "Pneumonia."

*Kent*—Tuesday, February 10, 1942—Grand Rapids—Speaker: Brigadier General Leigh C. Fairbank, U. S. Army Medical Corps, Washington, D. C.—Subject: "American Medicine Prepares for War."

*Muskegon*—Friday, January 23, 1942—Muskegon—Speaker: Claire L. Straith, M.D., Detroit—Subject: "Plastic Surgery of the Face."

*Oakland*—Wednesday, February 4, 1942—Rotunda Inn—Speaker: E. S. Gurdjian, M.D., Detroit—Subject: "The Management of Brain Injuries."

*St. Clair*—Tuesday, January 27, 1942—Port Huron—Speaker: Louis J. Hirschman, M.D., Detroit—Subject: "What Can We Offer Our Colon Cancer Patients?"

Tuesday, February 10, 1942—Port Huron—Speaker: Wm. J. Cassidy, M.D., Detroit—Subject: "War Surgery."

*Washtenaw*—Tuesday, February 10, 1942—Ann Arbor—Speaker: C. W. Muehleberger, M.D.—Subject: "The Michigan Crime Detection Laboratory."

*Wayne*—Monday, February 16, 1942—Detroit—Speaker: Chevalier L. Jackson, M.D.—Philadelphia—Subject: "The Bronchoscope and Its Rôle in Modern Medicine." Monday, February 23, 1942—Detroit—Speaker: Richard M. Overholt, M.D., Brookline, Massachusetts—Subject: "A Common Masquerading Lung Disease." Monday, March 2, 1942—Detroit—General Meeting; joint session with the Woman's Auxiliary. Monday, March 9, 1942—Detroit—Medical Section Meeting; joint session with Detroit Retail Druggists Association. Monday, March 16, 1942—Detroit—Speaker: Maurice N. Walsh, M.D., Rochester, Minnesota, Subject: "Neurologic Conditions Seen in General Practice."

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## NEW COUNTY SOCIETY OFFICERS

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Delegate—M. G. Wood, M.D. . . . . Hart
Alternate—Wm. Heard, M.D. . . . . Pentwater

*(Continued on Page 198)*

# *Highly practical*
## *for* INFANTS *and* CHILDREN

INCORPORATING the daily dose of vitamin D in milk removes some difficulties in administration. The mother merely needs to add the prescribed dose to the daily ration of milk. Moreover, biologic and clinical investigations have shown that when vitamin D is thoroughly diffused in milk smaller doses may suffice for the prevention and cure of rickets.

Drisdol in Propylene Glycol makes it possible to secure the benefits obtainable from combining vitamin D with the daily milk ration. Unlike oily preparations, Drisdol in Propylene Glycol diffuses readily in milk and when well diluted imparts no taste nor odor.

HOW SUPPLIED: Drisdol in Propylene Glycol—10,000 U.S.P. units per gram—is available in bottles containing 5 cc. and 50 cc. A special dropper delivering 250 U.S.P. vitamin D units per drop is supplied with each bottle.

# DRISDOL

Reg. U. S. Pat. Off. & Canada

*Brand of* CRYSTALLINE VITAMIN D from ergosterol

IN PROPYLENE GLYCOL

WINTHROP CHEMICAL COMPANY, INC.

*Pharmaceuticals of merit for the physician*

NEW YORK, N. Y. WINDSOR, ONT.

*(Continued from Page 196)*

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## FREE MEDICAL CARE

News dispatches dated September 7, 1941, proclaimed the free doctor plan of the government of New Zealand, as noted editorially by this *Journal,* October 1, p. 1912. On September 8, the New York *Times* said of the plan:

"Though the bill may be modified as the result of the doctors' storm of protest, New Zealand's example (free doctor care) should be taken to heart . . . But if we are not to go at least part way down the road that New Zealand is evidently bent on following we shall need to have a practical alternative. Organized medicine itself can, and should, provide that alternative by advocating a policy which will recognize the necessity of a sweeping change in the pattern of medical practice, make the hospital the center of every community's medical activities, bring the best that medicine has to offer to the needy, and permit the public to organize its own medical services under competent supervision."

Thus, the *Times* prescribes expertly for American medicine . . .

We know nothing about the newspaper business ourselves, except what we have seen on the stage in such plays as *The Front Page,* or what we read occasionally in a magazine article or see in the daily papers. But it must be an easy business to run. Just a matter of putting one letter after another and keeping at it; nothing to it, apparently, now that machinery has replaced the hand-operated methods of Gutenberg.

But even so the newspaper business compels our admiration. We in medicine are so hampered by the necessity to be sure of everything, so earth-bound by sordid fact and sober, even drab, reality, that we contemplate with awe the freedom of the press. Let us also confess that, with a little envy at times. we covet other occupations than our own, others in which life can be at once so simplified, so beautiful.

We suppose it is only natural now and then for one to feel that he has perhaps missed his calling. We do, be it confessed. Is it nostalgia? Perhaps. Or frustration? Maybe a little of both. In our case it takes the form of longing, curiously enough; a longing to be in the newspaper business in which, during one of our depressed states, we like to fancy ourself as one of the lords of the press . . .

Gradually, the querulous voices of the familiar sick, the crying children, the screams of women in childbirth, the bubbling, halting, gasping of the dying seem to be drowned in the crescent grumbling of the presses . . . the building shakes and quivers, even in the high soft carpeted office where we seem to sit at our vast, polished desk. Our mood of depression is superseded by a growing sense of exultation as we look about the noble apartment. We arise, we stride about uplifted as Gutenberg or Greeley must have been uplifed by a sense of power—power, might, dominion, majesty, glory. And the presses rumble as the papers flow, headlines screaming all the news that's fit to print.

A pressman rushes to us a copy of the edition still warm and a little damp; moist, as though sprinkled with the tears of those whose mortal struggle it chronicles. Black upon white; no gray tones of compromise, no tempering of justice with mercy. Power, might, dominion, glory! The unleashed energy of words thrills us as we glance at the front page, the foreign news, the editorials—letter on letter, sentence on sentence, precept on precept, page on page; a dynamic stream of power carries us onward, relentless, and so right!

We press the lever on the intercommunicating interoffice loudspeaking equipment with imperious finger. "Send us the Treasurer, Miss Tillinghast," we say to our secretary and resume our pacing . . .

The watchdog enters. "You wanted me?"

"Ah, Entwhistle, I do indeed. Marvelous, Entwhistle, that's what it is. I don't see how they do it on the paltry sums you pay them! Don't interrupt; I say it's marvelous; the words, the power, the insight and imagination, Entwhistle, are—shall we say?—priceless. Pay them more, much more! Don't interrupt, do as I say, and as you go out send me the foreman of the pressroom . . .

"Ah, Ulsheffer, come in. I meant to speak to you before this; marvelous, my dear boy, simply marvelous. Can you stop the presses?"

"Stop them, sir? Why, yes! if necessary."

"Can you run them backward?"

"Backward? Why, no, sir!"

"Have them fixed at once so this can be done, Ulsheffer. Don't argue! Attend to it. Just the other day, Ulsheffer, I discovered a split infinitive. You understand that *this cannot be allowed to occur again!* If it does, I shall order the presses reversed. This will recall all the papers before the organization is disgraced —publicly. Attend to it, Ulsheffer, and send me in the Sweeping Change Editor."

"But, sir—the Sweeping Change Editor?"

"Certainly; that's what I said, isn't it? Do I have to repeat myself?"

"But, sir, I don't know—."

"That will do, Ulsheffer. We do not use that expression in this organization; this is a newspaper; send him in."

"Yes, sir . . ."

Power, might, dominion . . .

"Ah, Kerksieg, come in; a word with you, sir. Marvelous, Kerksieg, simply marvelous! Admired your work for years. Your pay is raised. Keep on with the sweeping changes; turn the rascals out, Kerksieg; turn them inside out, upside down. If you think they are too big, make them smaller; if they are going ahead, march them backward; you know, Kerksieg, marvelous stuff, sweeping changes. And, Kerksieg—we cannot be paltry about these things you know; I have ordered a new broom to be delivered to you once a week. Use it vigorously! With us, Kerksieg, expense is no object."—*New York State Journal of Medicine,* October 15, 1941.

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# Acute Appendicitis

## A Twenty-five Year Study*

By Elliott C. Cutler, M.D., and
Stanley O. Hoerr, M.D.
(Associate in Study)
Boston, Massachusetts

Elliott C. Cutler, M.D.

*A.B., Harvard, 1909; M.D., Harvard Medical School, 1913; Honorary Doctorate, University of Strasbourg, 1938. Served in World War as Major, Medical Corps; Lt. Colonel, Medical Reserve Corps since 1924; decorated with Distinguished Service Medal. Chairman, Department of Surgery, and Director of Laboratory of Surgical Research, Harvard, 1922-24; Professor of Surgery, Western Reserve University School of Medicine, 1924-32; Consulting Surgeon, New England Peabody Home for Crippled Children, 1932 to present; Moseley Professor of Surgery, Harvard, 1932 to present; Surgeon-in-Chief, Peter Bent Brigham Hospital. Doctor Cutler is a member of many medical and social organizations.*

▪ The mortality rate for acute appendicitis, at least in the Peter Bent Brigham Hospital, Boston, with due regard for statistical variations, remains the same as it was twenty-five years ago. And yet think what has happened to technical surgery in twenty-five years. One looks back with some horror on the operative methods observed in 1910. Now these methods of therapy have been entirely changed, and we see generally throughout our country—no country today has better surgery—a perfected form of surgery, one best calculated to simplify the ordeal of the operation and to protect the patient. In spite of this perfection of technique, the mortality rate continues almost the same.

It is already apparent that better surgery is not going to save people from dying of appendicitis. Lowering of the death rate will come only when the mass of our people learn through education that when they have a bellyache, taking a cathartic or waiting may mean a fatal outcome. This is a good thing to discuss.

Doctors are set aside in life from most activities. Under the law we are relieved from serving on juries and excused from certain other civic duties. Doctors as a group work harder than most people and try to utilize every detail that may assist their individual patient. They are courageous and are wont to enter houses of danger and pestilence coolly and with a high purpose in mind. But do we not shirk a general responsibility to the public? We each go our own way, interested in our own patients, always giving them better care as individuals. But in caring for the individual, do we see equally the mass of humanity about us?

The day must come when some voice will arise in our profession, perhaps another P. T. Barnum who can convince the public through silver-tongued oratory that avoidable deaths still occur because the patient is too sick when he reaches the doctor or because the patient has taken some medicine without consulting a doctor. A part of the blame rests with the "corner drug store," where medicines are often peddled to ailing humanity without a proper examination. We need above all in this matter under discussion today to speak to the public as a mass, to educate them in medical matters, and even perhaps to draw up laws to prevent those who are not competent from giving advice to the public. It seems to me that such a move would save more lives than can all the improvements in technical surgery which are to come in the next twenty-five years! I hope the figures I have with me will point out this lesson clearly and that all of you will return home buoyed up with the crusader's spirit.

*Read before the Michigan State Medical Society, Grand Rapids, Michigan, September 17, 1941.

TABLE I. CLASSIFICATION OF ACUTE APPENDICITIS (MICROSCOPIC VERIFICATION)
Peter Bent Brigham Hospital 1913-1940

| | Cases | Per Cent |
|---|---|---|
| Acute Unruptured Appendicitis | 1605 | 73.2 |
| Acute Perforated Appendicitis | 340 | 15.5 |
| Appendiceal Abscess | 247 | 11.3 |
| Total | 2192 | 100.0 |

Acute appendicitis still remains the most frequent surgical emergency. During the twenty-eight-year period since the Peter Bent Brigham Hospital first opened its wards, one in every thirty admissions to the surgical service has had an operation for acute appendicitis. During this time in addition to perfected operative technique there have been improvements in diagnosis; great advances in our understanding of pre-operative and postoperative care; parenteral fluid therapy and gastro-intestinal syphonage have come into their own; and more recently new and effective chemotherapeutic agents have made their appearance. Nevertheless, patients still die from acute appendicitis just as they did twenty-eight years ago; and an analysis by five-year periods reveals the rather astonishing fact that for twenty years there has been no significant decline in the mortality rate.

Each of the 2,192 consecutive cases dealt with in this paper had microscopic confirmation of the diagnosis of acute appendicitis, once the appendix was removed. Cases have been rigidly excluded when the microscopic diagnosis was subacute appendicitis, subsiding appendicitis, chronic appendicitis, healed appendicitis, fibrosed appendix, etc., irrespective of the clinical or operative diagnosis. Furthermore, in a few instances, particularly in the early years, a diagnosis of acute appendicitis was made by the pathologist when there was nothing to indicate the condition, either clinically or at operation where the appendectomy may have been purely incidental. All such cases have been excluded. Excluded also are cases of carcinoma or carcinoid of the appendix, and tuberculosis of the appendix, even when associated with a suppurative appendicitis. This series, then, includes only instances of acute appendicitis which satisfy both clinical and pathologic criteria.†

†In perhaps eight or ten of the early cases the specimen was lost or was delivered in an unsatisfactory state to the pathologist; in these cases, as in cases of appendiceal abscess, the operative findings were characteristic.

## Classification

Each case has been placed in one of three groups: acute unruptured appendicitis; acute perforated appendicitis; appendiceal abscess. Table I shows the distribution of the cases into the three groups: 73.2 per cent we classified as unruptured, 15.5 per cent as perforated and 11.3 per cent as appendiceal abscess. Many types of classification have been suggested and all classifications of acute appendicitis have limitations. It has long been obvious that the fatalities occur almost exclusively in those patients in whom the disease has spread beyond the appendix itself, and that when peritonitis is generalized the mortality is higher than when it is localized, as in an abscess. Attempts have been made to classify appendicitis according to the degree of existing peritonitis at the time of operation by using such terms as localized peritonitis; spreading peritonitis; early or late rupture; gangrenous appendicitis; etc. Some classifications have taken into account the peritoneal culture. Our classification has had to be both simple and arbitrary because of the many different surgeons of varying experience and descriptive ability who operated in these years and because in the early period bacteriological studies were not carried out. Those cases which we have classified as "perforated" have had a gross perforation accurately described either by the surgeon or by the pathologist. *Instances in which the appendix has been broken or ruptured during removal have been placed with the unruptured group.* Cases designated as "abscess" have had a well-localized collection of pus without much evidence of disease beyond, although in some instances the quantity of pus has not been great and a well-walled-off grossly perforated appendix has been found. All remaining cases have been classified as "acute unruptured."

Even this simple and arbitrary classification is far from ideal. Among the "acute unruptured" there are many cases of severe appendicitis with disease beyond the confines of the appendix and in some instances a generalized peritonitis. Many of these unruptured cases have had a positive peritoneal culture and emphasize that a gross perforation need not exist before organisms traverse the necrotic and devitalized walls of a severely diseased appendix. Most—if not all—of the deaths in the "unruptured" group have occurred in such cases.

TABLE II. MORTALITY RATE IN ACUTE APPENDICITIS
Peter Bent Brigham Hospital 1913-1940

| | Cases | Deaths | Mortality |
|---|---|---|---|
| Acute Unruptured Appendicitis | 1604† | 19 | 1.2% |
| Acute Perforated Appendicitis | 339† | 58 | 17.1% |
| Appendiceal Abscess | 247 | 18 | 7.3% |
| Total | 2192* | 97* | 4.4% |

†One anesthesia death omitted
*Two anesthesia deaths included

## Mortality

Table II gives the mortality rates in the three classifications. In 1,604 cases of acute unruptured appendicitis there were nineteen deaths with a mortality of 1.2 per cent. In 330 cases with perforation there were fifty-eight deaths—a mortality of 17.1 per cent. In 247 cases of appendiceal abscess there were eighteen deaths with a mortality of 7.3 per cent. For the entire group of 2,192 cases there were ninety-seven deaths (including two deaths on the operating table) for a mortality of 4.4 per cent.

It is interesting to see how closely these figures correspond to similar figures taken from various leading clinics, Table III. Although the difficulties of classification which have already been mentioned, invalidate to some extent a comparison of figures from different institutions, we have grouped the cases to conform as closely as possible to our criteria. Only one of the authors cited makes any statement regarding pathologic control of the cases. Presumably microscopic study has been carried out in all cases, and yet no special point is made of it. We know that even competent surgeons may be in error in the diagnosis of early acute appendicitis. In our own records there are instances where the surgeon refers in a general way to the appendix as "perforated" and yet the pathologist was unable to find a gross perforation. Unless the surgeon specifically saw the actual perforation, the case must be classified with

TABLE III. MORTALITY RATES IN ACUTE APPENDICITIS
Leading Clinics*

| | Microscopic Control | Acute Unruptured Appendicitis | | Acute Perforated Appendicitis | | Appendiceal Abscess | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | Cases | Mortality | Cases | Mortality | Cases | Mortality | Cases | Mortality |
| Busch and Spivack New York Beth Israel Hospital 1931–1936 | Yes | 492 | 0.4% | 52 | 13.5% | 91 | 6.6% | 635 | 2.4% |
| Davis and McLaughlin Omaha U. of Neb. Hospital 1932–1938 | ? | 784‡ | 0.5% | 124‡ | 13.7% | 50‡ | 8.0% | 958‡ | 2.6% |
| Reid and Montanus Cincinnati Cincinnati Gen. Hosp. 1934–1938 | ? | 583 | 1.0% | 209 | 17.2% | 129 | 10.1% | 921 | 6.0% |
| Haggard and Kirtley Nashville Haggard Clinic 1915–1938 | ? | 2007 | 0.6% | 189 | 24.8% | 417 | 5.8% | 2613 | 3.2% |
| Stafford and Sprong Baltimore J. H. H. 1931–1939 | ? | 838 | 0.0% | 196 | 14.2% | 283 | 7.1% | 1317 | 3.6% |
| Cutler and Hoerr Boston P. B. B. H. 1913–1940 | Yes | 1604 | 1.2% | 339 | 17.1% | 247 | 7.3% | 2192† | 4.4% |

*Figures adapted and made comparable to Peter Bent Brigham Hospital statistics.
†Includes two table deaths.
‡Excludes five moribund patients.

TABLE IV. INCIDENCE OF PERFORATION AND ABSCESS IN ACUTE APPENDICITIS (FIVE-YEAR PERIODS)
Peter Bent Brigham Hospital 1913-1940

| | Cases | Perforation and Abscess | Per Cent |
|---|---|---|---|
| 1913–1920 | 475 | 181 | 38.1 |
| 1921–1925 | 423 | 107 | 25.3 |
| 1926–1930 | 402 | 97 | 24.1 |
| 1931–1935 | 375 | 90 | 24.0 |
| 1936–1940 | 517 | 112 | 21.7 |
| Total | 2192 | 587 | 26.8 |

In Table IV the serious cases of perforation and abscess are broken down by five-year periods. Although in the first five-year period the figure is significantly high and a downward trend is shown, there is no statistically significant difference among any of the later groups. Since these serious cases represent by and large delay in hospitalization, it is still safe to conclude that further intensive education of both laity and the medical profession will do more to cut the mortality rate than any changes in therapy as yet brought forward.

Table V analyzes the mortality rate over a twenty-eight-year period. It is surprising and disappointing to see that no real improvement is found. There is, as can be seen, a good deal of fluctuation; but no trend is shown and even the greatest differences in the same group are no greater than may be explained by statistical variation. That this is not a reflection upon the progressiveness of the Peter Bent Brigham Hospital is shown by the fact that our mortality rates for the entire 28-year period do not vary greatly from those reported by various clinics during only the past few years. (See Table III)

TABLE V. MORTALITY IN ACUTE APPENDICITIS (FIVE-YEAR PERIODS)
Peter Bent Brigham Hospital, 1913-1940

| | Acute Unruptured Appendicitis | | Acute Perforated Appendicitis | | Appendiceal Abscess | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Cases | Mortality | Cases | Mortality | Cases | Mortality | Cases | Mortality |
| 1913 – 1920 | 294 | 1.4% | 97 | 17.5% | 84 | 6.0% | 475 | 5.5% |
| 1921 – 1925 | 315 | 0.3% | 55 | 21.8% | 52 | 7.7% | 423 | 4.3% |
| 1926 – 1930 | 305 | 1.3% | 56 | 12.5% | 41 | 2.4% | 402 | 3.0% |
| 1931 – 1935 | 285 | 2.1% | 50 | 14.0% | 40 | 10.0% | 375 | 4.5% |
| 1936 – 1940 | 405 | 1.0% | 81 | 18.5% | 30 | 13.3% | 517 | 4.6% |
| Total | 1604* | 1.2% | 339* | 17.1% | 247 | 7.3% | 2192 | 4.4% |

*One anesthesia death omitted.

the unruptured. Such errors by themselves may account for some apparent differences. The pathologist then is as important in an accurate study of acute appendicitis as he is in a study of cancer.

The trend in each clinic is identical; the reported mortality for all cases varies from 2.4 to 6.0 per cent. In the unruptured group where the greatest discrepancies from lack of pathologic control are likely to occur the mortality ranges from 0 to 1.2 per cent; in the perforated group with peritonitis from 13.5 to 24.8 per cent; and in the group with abscess from 5.8 to 10.1 per cent. In the abscess group the difference between the highest and the lowest reported mortality rate is no greater than may occur in series of this size by statistical chance alone. In the perforated group there are no differences of statistical significance except for the highest figure of 24.8 per cent.

*Drainage.*—There have been two aspects of the operative treatment of acute appendicitis which have been of special interest to us. These are the effect of the location of the incision, and the desirability of draining the peritoneal cavity.

Chart VI reveals that there is a lower mortality in the cases which have not been drained. Of course it must be pointed out that here a selective

TABLE VI. ACUTE UNRUPTURED APPENDICITIS—OPERATIVE TREATMENT
Peter Bent Brigham Hospital 1913-1940

| Incision | Drains | Cases | Deaths | Mortality |
|---|---|---|---|---|
| McBurney | No | 567 | 3 | 0.5% |
| | Yes | 88 | 1 | 1.1% |
| Right Rectus, Midline, etc. | No | 680 | 2 | 0.3% |
| | Yes | 269 | 13 | 4.8% |

TABLE VII. ACUTE PERFORATED APPENDICITIS—OPERATIVE TREATMENT
Peter Bent Brigham Hospital 1913-1940

| Incision | Drains | Cases | Deaths | Mortality |
|---|---|---|---|---|
| McBurney | No | 28 | 2 | 7.1% |
| | Yes | 69 | 11 | 16.0% |
| Right Rectus, Midline, etc. | No | 16 | 1 | 6.3% |
| | Yes | 226 | 44 | 19.5% |

factor is at work since the most severe cases are the ones drained. But it must also be pointed out that drainage has not prevented an increase in the mortality rate in severe unruptured cases. There is another point of interest in these figures. Here the McBurney incision asserts its superiority, although in subsequent figures it does not enjoy a pronounced advantage since there are not sufficient cases to prove its superiority beyond statistical doubt. But in the acute unruptured group which are drained, the mortality is significantly raised when an incision other than the McBurney incision was employed. Although this is surprising in one sense it is logical in another sense, inasmuch as in the severe, although unruptured, case of appendicitis, one can potentially do more harm through spreading infection than one can in the already frankly perforated appendicitis with a general peritonitis.

*Incision.*—Table VII analyzes the perforated group in similar fashion and shows that there is no apparent advantage for the McBurney incision. But note the pronounced discrepancy between the mortality rates for the drained and the undrained with any type of incision. Again it must be pointed out that our surgeons, like surgeons everywhere, are inclined to drain the most severe cases. But again the least that may be said is that the cases selected for closure without drainage were wisely chosen. Moreover, when we recall the previous slide showing the effect of drainage in the unruptured group, we are led to conclude that no unperforated case should be drained.

TABLE VIII. APPENDICEAL ABSCESS*—OPERATIVE TREATMENT
Peter Bent Brigham Hospital 1913-1940

| Incision | Appendectomy | Cases | Deaths | Mortality |
|---|---|---|---|---|
| McBurney | No | 37 | 6 | 16.2% |
| | Yes | 43 | 1 | 2.3% |
| Right Rectus, Midline, etc. | No | 31 | 4 | 12.9% |
| | Yes | 133 | 7 | 5.3% |

*Three without operation omitted

TABLE IX. EFFECT OF LOCATION OF INCISION IN ACUTE APPENDICITIS
Peter Bent Brigham Hospital 1913-1940

| | McBurney | | Right Rectus Midline, etc. | |
|---|---|---|---|---|
| | Cases | Mortality | Cases | Mortality |
| Unruptured | | | | |
| Total | 655 | 0.6% | 949 | 1.6% |
| Drained | 88 | 1.1% | 269 | 4.8% |
| Perforated | 97 | 13.4% | 242 | 18.6% |
| Abscess | | | | |
| With Appendectomy | 43 | 2.3% | 133 | 5.3% |
| Drainage only | 37 | 16.2% | 31 | 13.3% |

Table VIII gives similar analysis for the abscess group. Appendiceal abscess naturally carries a lower mortality than free perforation. Here also no advantage is shown for the McBurney incision. This is in keeping with the theory that the type of incision is of no importance so long as the general peritoneal cavity is left undisturbed. The higher mortality rate in the group with drainage only is merely a reflection of the more severe type of appendicitis in which either the appendix cannot be conveniently found or local conditions or the condition of the patient make exploration inadvisable. It is our practice to drain all but the very smallest appendiceal abscesses.

Table IX summarizes the effect of the location of the incision upon the mortality rate in the three groups. Although there is a distinct trend favoring the McBurney incision in all groups except the abscess group, it is only in the unruptured drained group that there are sufficient cases to prove it statistically.

TABLE X. MORTALITY IN DRAINED AND UNDRAINED CASES OF ACUTE APPENDICITIS
Peter Bent Brigham Hospital 1913-1940

| | Drains | Cases | Mortality |
|---|---|---|---|
| Unruptured | No | 1247 | 0.4% |
| | Yes | 357 | 3.9% |
| Perforated | No | 44 | 6.8% |
| | Yes | 295 | 18.7% |

TABLE XI. EFFECT OF INCISION ON LENGTH OF HOSPITALIZATION ACUTE UNRUPTURED APPENDICITIS WITH NEGATIVE PERITONEAL CULTURE
Peter Bent Brigham Hospital 1933-1937

| Incision | Drains | Cases | Average Days Postoperative Hospitalization |
|---|---|---|---|
| McBurney | No | 148 | 10.2 |
| Right Rectus, Midline, etc. | No | 111 | 13.1 |
| McBurney | Yes | 9 | 14.6 |
| Right Rectus, Midline, etc. | Yes | 10 | 18.3 |
| Total McBurney | | 157 | 10.5 |
| Total Right Rectus, Midline, etc. | | 121 | 13.7 |

TABLE XII. DRAINAGE IN ACUTE UNRUPTURED APPENDICITIS (FIVE-YEAR PERIODS)
Peter Bent Brigham Hospital 1913-1940

| | Total | Drained | Per Cent |
|---|---|---|---|
| 1913–1920 | 294 | 125 | 42.5 |
| 1921–1925 | 315 | 115 | 36.5 |
| 1926–1930 | 305 | 48 | 15.7 |
| 1931–1935 | 285 | 49 | 17.2 |
| 1936–1940 | 405 | 20 | 4.9 |

Table X summarizes the mortality in drained and undrained cases. Although the quite pronounced differences must be interpreted with caution, it at least suggests that drains perhaps could be used less frequently without jeopardizing the patient's chance for recovery.

Another aspect to be considered in connection with the location of the incision and drainage of the peritoneum is the hospital morbidity. Table XI shows clearly that in the acute unruptured group the undrained McBurney incision imposes upon the patient the shortest hospitalization. It is an additional argument in favor of the lateral approach to the appendix and the more thoughtful use of drains.

The trend toward eliminating drains is plainly demonstrated by Table XII grouping the material in five-year periods. In the period from 1913 to 1920, 42.5 per cent of all cases with acute unruptured appendicitis were drained; from 1936 to 1940 only 4.9 per cent.

### Sulfonamide Therapy

Since the more general use of sulfonamide drugs in the treatment of peritonitis has been established for about three years, let us present for your consideration Table XIII, the fatalities from acute appendicitis in this most recent period. During this period the chief sulfonamide drug used by us was sulfanilamide. It was given by hypodermoclysis or by mouth if the patient was not vomiting and usually in dosage varying from 6 to 8 gm. daily. Although we have used sulfanilamide locally in numerous potentially infected appendiceal wounds, we have not made a practice of placing it in the peritoneal cavity, and it was not so used in the cases discussed here. It may be that the intraperitoneal use of these drugs will have a markedly beneficial effect. Some authors, notably the recent report from the Roosevelt Hospital in New York, give encouraging results from this method of treatment. But there is contradictory evidence and the number of cases reported is insufficient to permit a final opinion.

### Treatment and Mortality

In the period 1938-1940 there were fourteen deaths. In six of the fourteen some extra-abdominal disease may properly be listed as the primary cause of death; two coronary closure, three pulmonary embolism, one diabetes and pulmonary complications. The two deaths in unruptured cases fall into this group, as do the three which were closed without drainage. In no instance could death be attributed to a failure to drain. Nine of the patients were fifty years old or over. In only two were the symptoms of shorter than forty-eight hours' duration, and in none less than twenty-four hours. Eight had taken cathartics, several at the behest of a physician! Sulfonamide derivatives failed to save four of the eight patients dying of peritonitis or its complications; in

TABLE XIII. DEATHS FROM ACUTE APPENDICITIS

Peter Bent Brigham Hospital, 1938-1940

| Cases | Sex | Age | Duration of Symptoms | Catharsis | Type of Appendicitis | Chemo-therapy | Post-operative Survival | Autopsy | Primary Cause of Death | Incision | Drains |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M.O. | F | 50 | 3 days | Yes | Unruptured | Late | 8 days | Yes | Pulmonary embolism Coronary infarct | RR | Yes |
| M.C. | F | 60 | 48 hrs. | ? | Unruptured | Yes | 71 days | Yes | Diabetes Nephritis Pulmonary complications | McB | No |
| J.B. | M | 12 | 48 hrs. | Yes | Perforated | Late | 8 days | Yes | Peritonitis | McB | Yes |
| J.L. | M | 57 | 24 hrs. | Yes | Perforated | No | 5 days | Yes | Peritonitis Septicemia | RR | Yes |
| N.C. | M | 25 | 5 days | No | Perforated | Yes | 2 days | No | Peritonitis Pylephlebitis | McB | Yes |
| D.J. | F | 35 | 48 hrs. | Yes | Perforated | Yes | 16 days | Yes | Peritonitis Obstruction | RR | Yes |
| M.S. | F | 45 | 36 hrs. | Yes | Perforated | No | 6 days | Yes | Pulmonary embolism | McB | Yes |
| M.C. | F | 75 | 48 hrs. | No | Perforated | No | 4 days | Yes | Coronary infarct | McB | No |
| W.A. | M | 63 | 40 hrs. | Yes | Perforated | No | 9 days | No | Pulmonary embolism | McB | No |
| S.R. | M | 67 | 3 days | No | Perforated | Yes | 4 days | Yes | Peritonitis | McB | Yes |
| B.B. | M | 71 | 7 days | No | Perforated | No | 3 days | Yes | Peritonitis | RR (upper) | Yes |
| C.S. | M | 18 | 7 days | Yes | Abscess | Late | 48 days | Yes | Abdominal abscesses Empyema | McB | Yes |
| T.McE. | M | 58 | 10 days | No | Abscess | Yes | 8 days | Yes | Pulmonary embolism | McB | Yes |
| A.B. | M | 69 | 5 days | Yes | Abscess | Yes | 7 days | No | Peritonitis Ileus Pylephlebitis | McB | Yes |

the four remaining it was either not tried or tried late in the course of the disease.

**What does this teach us? It shows us that the most important factors still remain early diagnosis and avoidance of cathartics. It shows us that oral or parenteral chemotherapy is not yet a panacea. It shows us that extra-abdominal complications may kill our older patients, even after the abdominal disease has been conquered.**

## Summary

This study of acute appendicitis at the Peter Bent Brigham Hospital from 1913 to 1940 divides all appendicitis into three groups: acute unruptured appendicitis, acute perforated appendicitis, and appendiceal abscess. It is based upon rigid clinical and pathologic criteria. The total mortality for the entire group of 2,192 cases is 4.4 per cent. The mortality in acute unruptured appendicitis is 1.2 per cent; in acute perforated appendicitis 17.1 per cent; in appendiceal abscess 7.3 per cent. The proportion of cases with perforation or abscess is still today greater than 20 per cent; indicating the need of an educational campaign directed toward the public.

An analysis by five-year periods shows no significant improvement in mortality trends in any

of the three groups despite the modern availability of gastro-intestinal syphonage, parenteral fluid therapy and more recently the sulfonamide drugs. A distinct advantage is shown for the McBurney incision, particularly in acute unruptured appendicitis which has been drained. Drains are used far less frequently in recent years, and the low mortality in the undrained cases, both unruptured and perforated, encourages still further restrictions on the indications for drainage. An analysis of the fourteen deaths occurring in the past three years discloses that six died of extra-abdominal complications, that four died of peritonitis despite heavy treatment with sulfonamide drugs and that no death could be attributed to a failure to drain. The fact that all but three of the fourteen had symptoms forty-eight hours or longer before coming to the hospital, and that eight had taken some type of cathartic (several on the advice of a physician!) suggests that the mortality from this disease is still best attacked through earlier diagnosis and treatment rather than through skillful management of the late cases.

**We must become Crusaders as well as Physicians and Surgeons!**

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# The Pathogenesis of Acidosis and Alkalosis*


By James L. Gamble, M.D.

Boston, Massachusetts

James L. Gamble, M.D.

*A.B., Leland Stanford University, 1906, M.D., Harvard Medical School, 1910, S. M. (hon.) Yale University, 1930. Teaching and investigation in Department of Pediatrics, The Harvard Medical School (1922-30). Professor of Pediatrics, 1930 to date. Member American Pediatric Society, American Academy of Pediatrics, Association of American Physicians, American Society of Biological Chemists.*


■ The disturbances of body fluid reaction which we call acidosis or alkalosis have been studied quite successfully by the methods of physical chemistry. And so it is quite understandable that the results of these researches have been presented in the language of the physical chemist which, unfortunately for most of us, is largely mathematical. I shall try to substitute morphology for mathematics. As physicians, we are

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accustomed to thinking of disturbance of physiological function in terms of underlying anatomical change. This familiar conception can be quite logically used in discussing the physical chemistry of the blood plasma. The quantities of the chemical substances in the plasma are adjusted in such a way as to provide the necessary stability of the important physical property which we call reaction. It is therefore permissible to regard the chemical composition of the blood plasma as a chemical structure, alteration of which, by processes of disease, will cause a change in reaction. So we can, if we like, speak of the chemical anatomy of the blood plasma.

The reaction of the blood plasma has, as you know, under normal circumstances an almost constant value. In so short a discussion as this we can only undertake to consider some of the main features of the regulatory mechanism which provides stability of reaction. What we might call its proximal part, on which reaction directly rests, is the ratio of the concentrations in the plasma of two substances: carbonic acid and its salt, bicarbonate. Carbonic acid is a weakly acid substance and bicarbonate is weakly alkaline. So it is clear that the reaction of a solution containing both of these substances will be determined by their relative amounts. The ratio which provides the physiologically correct reaction is one part of carbonic acid to twenty parts of bicarbonate. Under normal circumstances this ratio is sustained by the presence in plasma of 3 volumes per cent carbonic acid and 60 volumes per cent bicarbonate. A change in the concentration of carbonic acid or of bicarbonate from their usual values will alter the ratio and so cause a change in plasma reaction.

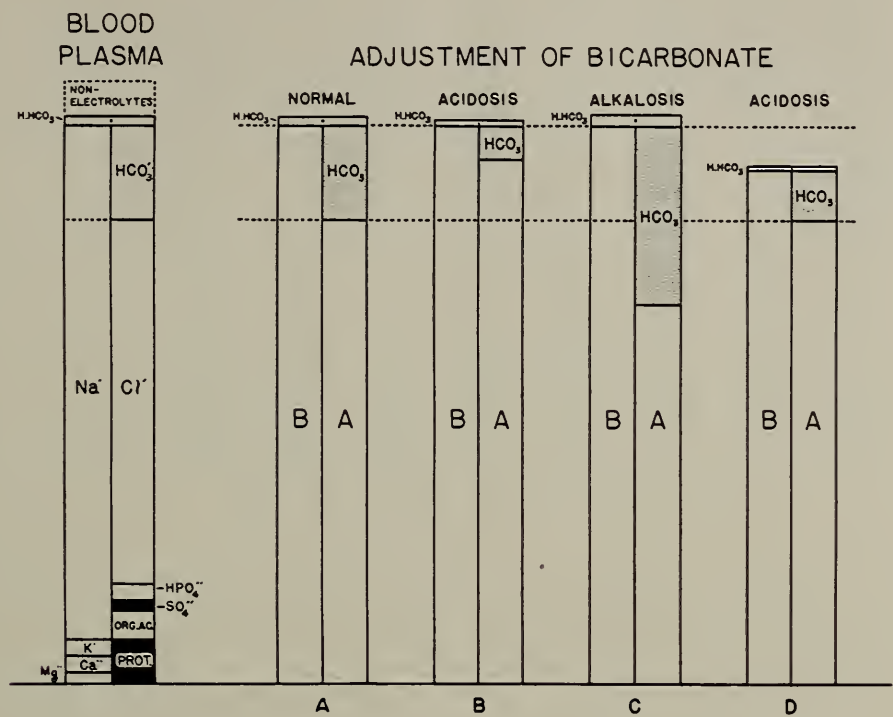



Fig. 1

In order to understand how various conditions of disease cause change in the concentration of carbonic acid or of bicarbonate, we need to know how their normal values are maintained. The concentration of carbonic acid in the plasma rests on respiratory control of the concentration of carbon dioxide in the residual air of the lungs, and so excellent is this control that we do not often encounter an abnormality of reaction in the plasma which is due to an incorrect concentration of carbonic acid. Occasionally, however, this respiratory control is disturbed. An intracranial lesion affecting the respiratory center may cause acidosis or alkalosis. Or, as in emphysema, interference with the mechanics of lung ventilation may cause a change in the concentration of carbonic acid in the residual air with corresponding change in the blood plasma.

By and large, however, the usual cause of

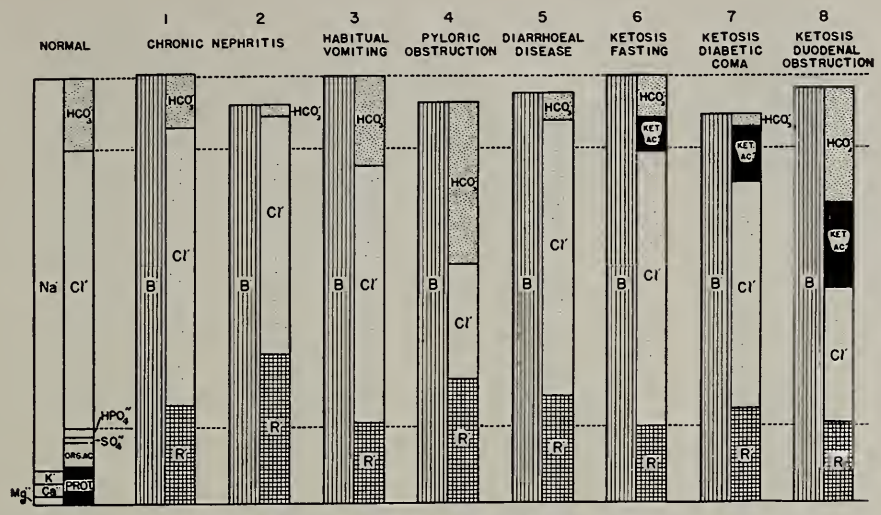
acidosis or alkalosis is change in bicarbonate. The way in which the normal plasma bicarbonate is sustained requires quite a bit of explaining. This I will try to accomplish by what we may call the anatomical method of exposition, with the help of the diagrams in Figure 1. The first one describes the normal acid-base composition of the blood plasma. The values for the several components of the plasma base are superimposed in the left-hand column. The other column is composed of the values for the acid radicals which together cover the plasma base. The line down the center of the diagram indicates correctly that in the plasma we have to deal, not with salts, but with separately controlled concentrations of the component ions of the various salts which our food intake supplies. Across the top of the diagram is the small concentration of carbonic acid and just below it the twenty times larger concentration of bicarbonate ion, $HCO_3$, which together with the base which it covers constitutes the plasma bicarbonate. Carbonic acid, as we have said, is controlled by the respiratory mechanism. Bicarbonate is under renal control, but not directly. That is, if the kidney succeeds in sustaining the other components of the plasma at their normal values, bicarbonate will also be on the mark. But if change is permitted to occur in any other part or parts of the plasma structure, bicarbonate will change in the direction which will preserve total acid-base equivalence; which is indicated in the diagram by the equal heights of the two columns. For instance, in the second diagram (Fig. 1 *B*), the sum of the concentrations of the other acid radicals has risen above the usual level. This results in bicarbonate ion being dispossessed of base to an equivalent extent. This bicarbonate is released as carbonic acid and is immediately removed from the plasma by the lungs. The reverse event is shown in the next diagram (Fig. 1*C*). Here a recession in the sum of the other acid components has occurred. Uncovering of base is prevented by a corresponding increase in bicarbonate ion. The bicarbonate ion used in this process comes from the free carbonic acid which the respiratory mechanism sustains in the plasma at a fixed level. In the last diagram (Fig. 1*D*) a reduction of base is seen to cause an equivalent loss of bicarbonate.

And so we find that bicarbonate exhibits an alert adjustability which prevents the uncovering of the radicals of strong base or of strong acid in the plasma, an event which would cause a change of reaction of a degree incompatible with life. A change of reaction of very much smaller degree does, however, occur as a result of alteration of the carbonic acid-bicarbonate ratio which these changes in bicarbonate cause. Bicarbonate being the alkaline component of the ratio, a decrease causes an increased acidity or acidosis and an increase an abnormal alkalinity or alkalosis.

The summary of this preamble is that change in the plasma bicarbonate is never a primary event. It is always a necessary adjustment to change in some other part or parts of the acid-base structure of the plasma. So it follows that study of the pathogenesis of acidosis or alkalosis must consist in finding the underlying defect in the plasma structure and in then explaining this defect in terms of the accompanying circumstances of disease. Theoretically this plan of study requires a complete dissection of the chemical anatomy of the plasma. This would be a laborious task and fortunately we are forbidden to undertake it because it would require an exorbitant blood sample. Usually, however, we can obtain a satisfactory account of the cause of the change in bicarbonate by making only three measurements. The total base of plasma, that is the sum of the concentrations of sodium, potassium, calcium, and magnesium, can be measured by a single procedure. If we then measure bicarbonate and chloride we have left unmeasured only the remnant of the acid column which is composed of the several relatively small items of plasma structure. The diagrams in Figure 2 are constructed from these three measurements obtained from the blood plasma of individual patients. They will serve to illustrate various distortions of the structure of the plasma and the resulting change in bicarbonate. In these diagrams *B* means total base and the remainder of the acid column is designated *R*. As we have already seen, the quantity of bicarbonate in the plasma is determined by the extent to which total base stands above the sum of the other acid radicals. The purpose of the diagrams is to demonstrate how this availability of base for the formation of bicarbonate is altered by change in other parts of the plasma structure.

Since the kidney is the organ of regulation of the composition of blood plasma, we will ex-

pect to find disturbance of this control in renal disease and we *do* find the development of a variety of defects of plasma structure. The most common one is described by this first diagram this loss of base is not visible in the diagram. The adjustable factor in the diagram, bicarbonate ion, being on the acid side, it follows that the height of the diagram is determined by the base column.




RELATIONSHIP OF ALTERATIONS OF ELECTROLYTE STRUCTURE OF PLASMA, PRODUCED BY VARIOUS CONDITIONS OF DISEASE, TO CHANGE IN BICARBONATE.

Fig. 2

(1) from a patient with chronic Bright's disease and consists in an extension of *R*. This has been found to be composed of an increase in the concentrations of the radicals of phosphoric acid, sulphuric acid, and the group of organic acids. That is, we have retention of plasma components which ordinarily are carried at relatively very small concentrations. The chloride ion having its usual concentration, this increase in *R* makes necessary a corresponding reduction of bicarbonate and explains the moderate degree of acidosis so frequently found in the course of chronic nephritis.

The next diagram (2) is from a patient in a very advanced stage of the disease. Here we have a much larger increase in *R* and also another structural change, reduction of total base which also lowers bicarbonate. These two changes together explain the extremely severe degree of acidosis which often develops in the terminal stage of chronic nephritis.

When gastric secretions are vomited there occurs a loss of sodium and a much larger loss of chloride ion from the plasma. The diagram (3) from an infant who habitually regurgitated his feedings shows a small loss of chloride ion which has caused a moderate increase in bicarbonate. In this situation, as we have just said, there is also a loss of sodium; so we have to explain why The height of the diagram measures the total ionic concentration and it is physiologically very important that this be held stationary because it determines the osmotic value of the plasma. So when there is a loss of base, the kidney, so long as it is able to function accurately, removes a corresponding quantity of plasma water and in this way preserves the normal concentration of base.

The next diagram (4) is from a patient with complete obstruction of the pylorus who had vomited his stomach secretions for several days before entering the hospital. One sees the enormous recession of chloride ion and in consequence this huge extension of bicarbonate indicating alkalosis of extremely severe degree. We also find in this diagram two other large structural changes, an increase in *R* and a reduction of base. These are the changes which we have just seen in the advanced nephritis diagram and here we may also refer them to the kidney. As you know, continued loss of stomach secretions sets up a rapid process of dehydration. When this loss of fluid has produced extensive reduction of blood plasma volume, severe impairment of renal function develops, and we have as shown in the diagram, retention of the smaller components of the acid column and on the other side of the diagram inability to sustain the largest and structurally most important component, sodium.

The next diagram (5) is from an infant suffering from diarrheal disease. Here the alkaline duodenal and intestinal secretions are lost along with the acid gastric secretions. This produces loss of sodium, chloride ion and water from the plasma in roughly their plasma proportions. Recession of chloride ion concentration therefore does not occur. Instead of the alkalosis, which is characteristic of vomiting, we usually find acidosis and this is referable, as we see in the diagram, to extension of *R* and reduction of base. These two changes are again the result of impairment of renal function caused by dehydration.

The most frequent cause of bicarbonate reduction is the presence in the plasma of incompletely oxidized fatty acids, the so-called ketone acids. Diagram (6) describes a very simple situation, the ketosis of fasting. As you see, the concentration of ketone acids covers base at the expense of bicarbonate. All of the other parts of the plasma structure retain their normal values. If we restore the usual level of carbohydrate metabolism, by an intravenous injection of glucose or by simply giving sugar by mouth, if this is practicable, these ketone acids will be oxidized and bicarbonate will recover its usual value. More or less complete starvation is, of course, a frequent incident of many conditions of disease.

The next diagram (7) is from a child in diabetic coma. Here we have a large concentration of ketone acids replacing its equivalence of bicarbonate. Also we have again increase in *R* and lowering of base and these changes contribute to reduction of bicarbonate to a desperately small value. These changes are the result of renal disability from the severe dehydration which is always a prominent and very dangerous feature of the situation in diabetic coma.

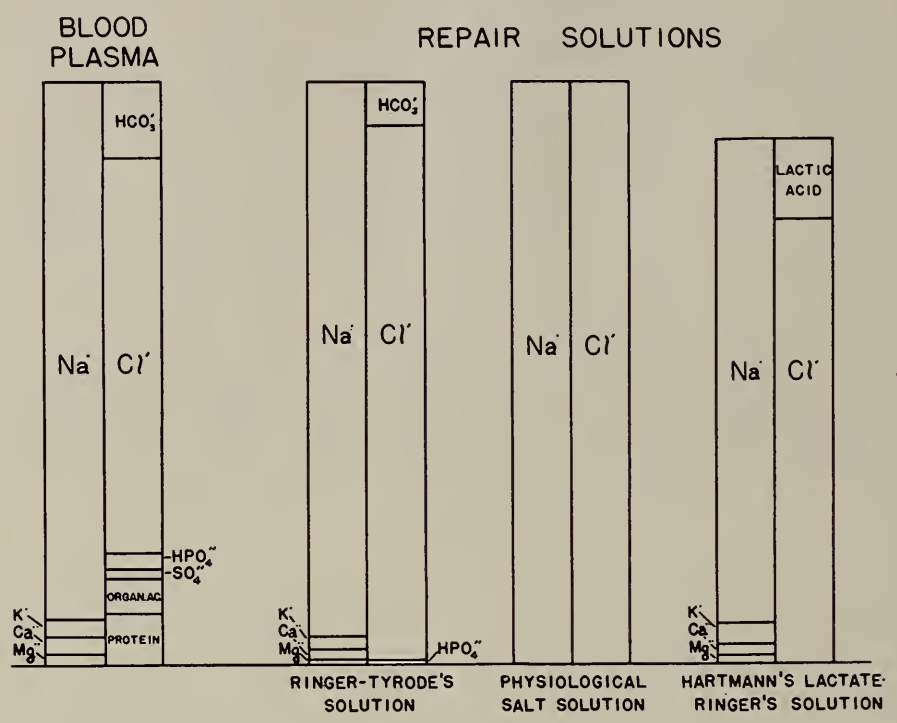
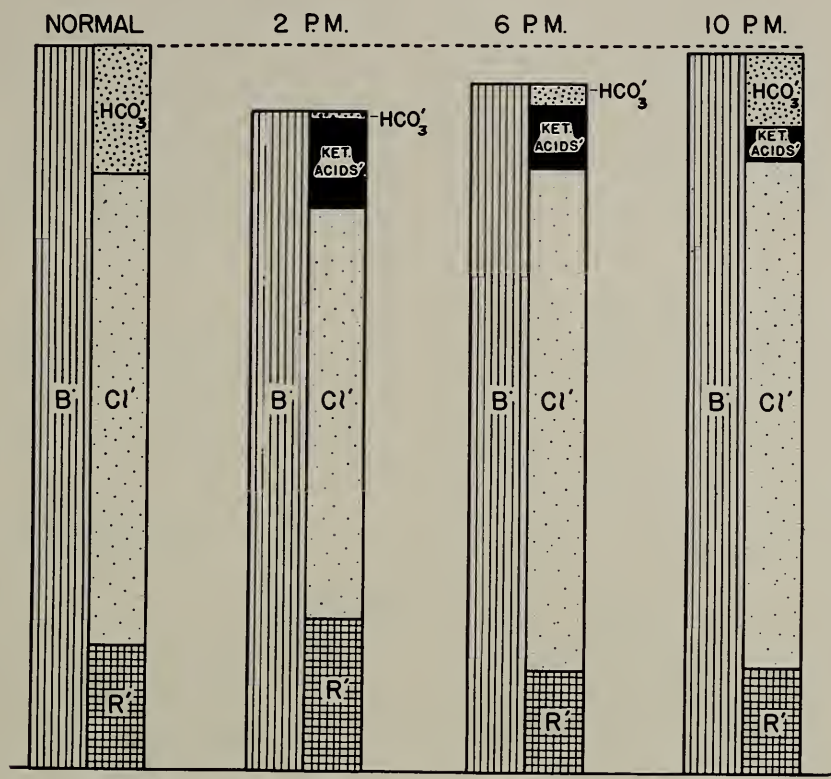



Fig. 3

Although the ketone acids always replace their equivalence of bicarbonate in the plasma and are the most frequent cause of acidosis, we may find ketosis in the presence of alkalosis as shown in the last diagram (8). This patient was a little child with upper intestinal obstruction. As a result of the incidental starvation, we find this very large concentration of ketone acids. Loss of stomach secretions by vomiting produced, however, a recession of chloride ion which is larger than the accumulation of ketone acids and so bicarbonate has to extend. The mystery of ketosis in the presence of alkalosis is thus explained and the diagram serves to remind us that we cannot dependably diagnose acidosis by finding ketone acids in the urine.

The diagrams portrayed were selected with the particular purpose of illustrating and emphasizing the fact that, in body fluid disturbances of such severity as to require energetic parenteral therapy, we nearly always have dehydration along with acidosis or alkalosis. And so in our attempts at treatment of these situations which are often very dangerous we are called upon to restore the volume of the blood plasma and of the interstitial fluid behind the plasma, and at the same time repair these various defects of structure. This would seem to be a very complicated assignment. Actually, however, we can usually accomplish it successfully with the help of only two extremely simple therapeutic agents.




THERAPEUTIC AGENTS USED: INSULIN 25 UNITS, 10% GLUCOSE SOLUTION (INTRA V.) 300 CC., 2% SODIUM BICARBONATE SOLUTION (INTRA V.) 200 CC., 0.9% SODIUM CHLORIDE SOLUTION (SUBCU.) 300 CC.

Fig. 4

It would at first glance seem that, in order to provide for the rebuilding of the chemical structure of the plasma, we ought to supply all of the component materials; in other words that we ought to use one of the elaborate solutions which physiologists have devised for perfusion experiments, such for instance as Tyrode-Ringers solution (Figure 3). We probably can, however, dependably decide that it is not necessary to provide the smaller items of structure because they will be supplied in sufficient quantity by the processes of cellular metabolism which must carry on even in a situation of starvation. This does not apply to the two large components of the plasma structure, sodium and chloride ion because they occupy an exclusively extracellular position in the body. And so the apparent complexity of the therapeutic requirement disappears and the indicated agent of repair is simple physiological salt solution.

Our expectation then is that if we supply water, sodium, and chloride ion abundantly in the form of salt solution, the kidney will so regulate the retention of these materials individually and of the other materials supplied by the processes of metabolism, that volume will be restored and all defects of structure repaired with the result that the plasma bicarbonate will recover its normal value. This expectation obviously implies an alert and capable kidney and we have just emphasized the impairment of renal function which develops in the advanced stage of dehydration.

A second and very important therapeutic re-

quirement is, therefore, restoration of renal control over the individual parts of the plasma structure. This can usually be accomplished by intravenous injection of isotonic glucose solution. Glucose solution does in some way or other, and usually quite rapidly, restore renal function; probably by reëstablishing plasma volume and a normal flow of blood through the kidney. There is also the consideration that the water which glucose solution provides must be removed by the kidney and this presumably facilitates renal function.

**Theoretically, salt solution will not offer water for removal until dehydration has been repaired. Glucose will also remove an accumulation of ketone acids if there is this blemish in the plasma structure, as there is so often owing to the frequency of starvation in these situations. Although there are these very important services which glucose solution provides, we should remember that it cannot directly repair dehydration because it does not replace the sodium and chloride ion which have been lost along with water. Only salt solution can restore the volume of the plasma and of interstitial fluid.**

It is necessary to mention a third agent which should occassionally be used. When there is very severe acidosis, it is probably wise to give, as an initial procedure, an isotonic solution of sodium bicarbonate by intravenous infusion, with the purpose of sustaining a dangerously lowered bicarbonate until the reparative effects of salt solution and of glucose solution have been obtained. Instead of bicarbonate, the solution devised by Hartmann may be appropriately used. The essential feature of Hartmann's solution, as shown in the diagram (Fig. 3) is that it contains sodium lactate along with sodium chloride. The lactic acid radical is oxidized and bicarbonate takes its place.

The therapeutic agents for the treatment of dehydration and of acidosis and alkalosis are thus conveniently identical and, owing to the skillfulness of renal coöperation, they are very simple. The diagrams in Figure 4 will serve to illustrate the rapidity of their effectiveness. The patient was a three-year-old child in diabetic coma, extremely dehydrated and with only a small remnant of plasma bicarbonate. As shown in the diagrams, an almost complete repair of the plasma structure was obtained in the course of about eight hours.

I am sure that it has been difficult for you to follow this condensed presentation of an intricate subject. I shall be content if I have succeeded in persuading you that it is possible to translate the language of physical chemistry into terms and conceptions with which we as physicians are familiar. I feel very strongly that such interesting and medically important matters should not be regarded as the intellectual property of physical chemists.

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The material in this paper, including the charts, is in large part taken from the 1937 Thayer Lectures given by the author at Baltimore and published in the Johns Hopkins Bulletin, LXI, 151-197.

The figures are produced with the consent of the Johns Hopkins Press.

MSMS

# Uveitis*

By Alfred Cowan, M.D.

Philadelphia, Pennsylvania

ALFRED COWAN, M.D.

*M.D., Medico Chirurgical College, Philadelphia, 1907. At present Professor of Ophthalmic Optics, Graduate School of Medicine, University of Pennsylvania; Ophthalmologist to Philadelphia General Hospital; Supervising Ophthalmologist, Department of Public Assistance, Commonwealth of Pennsylvania; Consulting Ophthalmologist Council for the Blind, Commonwealth of Pennsylvania; Ophthalmologist to Pennsylvania Working Home for Blind Men, Philadelphia; Author of "An Introductory Course in Ophthalmic Optics" and of "Refraction of the Eye," and a number of articles on ophthalmological subjects; a member of the American Ophthalmological Society; American Academy of Ophthalmology and Otolaryngology; College of Physicians, Philadelphia, and others.*

A GENERATION or so ago, when the term uveitis was used it meant either sympathetic ophthalmia or panophthalmitis. Only in these conditions was the entire uveal tract considered to be involved. The word is not even found in many of the older textbooks on ophthalmology. But gradually the use of modern methods of investigation, particularly the widespread clinical use of the slit lamp and corneal microscope, has led to the more common use of the general term,

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*Presented at the seventy-sixth annual meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1941.

uveitis, to replace such specific diagnoses as iritis, cyclitis, iridocyclitis, kerato-iritis, iridchoroiditis and choroiditis. Opthalomologists have learned that opacities of the vitreous and precipitates on the posterior surface of the cornea are merely the products of inflammation or of degeneration —blood cells, plasma, fibrin and pigment—not disease per se and so such terms as hyalitis, descemetitis and keratitis punctata posticum or keratitis profunda have become almost extinct. The abbreviation K.P. previously used to designate keratitis punctata is retained to indicate keratic precipitates.

Whether or not the symptoms are more predominant in the iris, the ciliary body or the choroid, the other parts of the uveal tract are so frequently found to be involved in the process that even though such involvement for the time being cannot be verified by examination, the cautious clinician feels safe only in calling the condition uveitis. Even such terms as anterior uveitis or posterior uveitis are considered too specific. In practically every case of inflammation of the anterior parts of the uvea the posterior parts eventually become involved, and vice versa. Seldom, if ever, are the common signs of uveitis—turbidity of the aqueous, keratic precipitates, vitreous opacities—absent in affections of the posterior portions of the uvea. Indeed, a number of diseases which seem to originate in parts other than the uvea are associated from the beginning with, or are eventually complicated by, a severe uveitis; for example, interstitial keratitis, scleritis, detachment of the retina. Often the first signs of interstitial keratitis are those of uveitis and in many instances only after some time has elapsed can a definite diagnosis be made. Probably most cases that are diagnosed as idiopathic detachment of the retina are primarily uveitis, the separation of the retina a major symptom. Uveitis is so constantly and intimately associated with scleritis that it is the opinion of many, myself included, that what is generally called scleritis originates in the uveal tract and is actually only a variety of uveitis. At any rate I should never make a positive diagnosis of scleritis until signs of uveal involvement can be seen with the slit lamp and corneal microscope. There is no doubt in the minds of a great number of ophthalmologists that many cases of glaucoma, diagnosed and treated as primary, are in fact secondary to chronic uveitis. Every clinician, once in awhile, has a case of hypertension which is extremely hard to classify definitely as primary or secondary glaucoma. Neither is myopia a disease entity. The proper diagnostic term for so-called malignant myopia is chronic uveitis. The myopia may be a coincidence or a consequence, but it is not the disease.

### Diagnostic Features

The term uveitis has come to be used to include a number of conditions which have been, and still are, treated as separate disease entities. Such a heading covers a large subject, far too large to be adequately discussed in the time allotted to this presentation and so I shall limit my remarks to a comparatively few phases of the disease, particularly to the diagnostic features of the subacute and chronic types as demonstrated with the slit lamp and corneal microscope.

Aside from hyperemia and ciliary injection, one of the first signs of an inflammation of the uveal tract is turbidity of the aqueous. Even in exudative choroiditis the aqueous, sometimes from the very onset of the disease and almost always eventually, shows some turbidity. (Vogt has pointed out that the normal aqueous is not absolutely transparent. It can be seen by careful examination that the normal aqueous is slightly relucent. If the rest of the anterior chamber is dark enough the edge of a narrow beam of light from the slit lamp can be faintly seen by contrast with its surrounding darkness. Basil Graves has shown that, in a dark room, the beam nearly always can be seen indirectly by looking slightly to the side. The slit lamp examination for pathologic relucency of the aqueous, the "aqueous flare," therefore, should not be made in a completely darkened room). The turbidity of the aqueous which results in more or less loss of transparency is due to exudates from the iris and ciliary body; exudates which are so fine that they cannot be seen. The visibility increases in proportion to the amount of exudate. Later, individual particles of fibrin and cellular and pigmentary elements, large enough to be seen appear as tiny specks moving with the convection currents of the aqueous.

An outstanding aqueous beam is the danger signal of sympathetic uveitis. It is the warning that radical measures are indicated at once. By the time actual cells and particles can be seen floating in the aqueous, it may be already too late to save the sympathizing eye. This symptom is much more important than the so-called sympathetic irritation. Careful, almost constant, observation with slit lamp and corneal microscope should be made in every case of injury, the nature of which is likely to result in sympathetic uveitis. In certain severe types of uveitis with rapid onset, particularly of gonorrheal origin, large clumps of white, cloudy, gelatinous or spongy exudates may entirely fill the anterior chamber.

Carried around by the aqueous current, the exudates find lodgment on the posterior surface of the cornea, on the iris and on the anterior surface of the lens. Sometimes they form a fine mist-like deposit over the posterior surface of the cornea—the "bedewing" seen by trans- or retroillumination with the slit lamp and corneal microscope. Collections of the exudate may form various sized aggregations, which give the appearance of droplets of a fatty substance, the so-called "mutton fat" variety of precipitate. The exudates may be translucent or opaque, round, oval, irregular, with sharp edges or amorphous, white, gray, pinkish or brownish. Occasionally the deposit forms a large, dense, plaque-like mass which clings to the iris, lens or cornea. Neither the character, shape, color, nor the amount of precipitate is indicative of the etiologic factor responsible for the disease. Any or all forms of exudates or precipitates mentioned, might be found in an acute, subacute or an exacerbation of a chronic uveitis, regardless of the underlying cause.

### Course

As the severity of the condition subsides and recovery takes place many of the exudates disappear. The more rapidly they are produced the more rapidly they seem to be resorbed. The gelatinous and spongy masses, so frequently seen in gonorrheal iritis, often disappear in a remarkably short time, sometimes in a few days. The fatty type of K.P. usually remain for a long time. Shrinkage is manifested by the irregular or crenated borders, which is the first sign of subsidence. Fresh exudates are plump and have smooth edges. The deposit gradually becomes smaller, flattens and the color, which was a dirty or pearly white at first, takes on a tinge of brown. Either it becomes pigmented or it appears so because the pigment contents remain while the cellular elements only are resorbed. The pigmentary and fibrinous precipitates are often left as permanent remains. In cases of recurrent uveitis fresh precipitates, corresponding to the later relapses, will be seen intermingled with the older ones.

It has been stated that the adherence of exudates to the cornea takes place because the endothelium is affected. It is probably true that adherence is favored by a roughened endothelial surface, but there is no doubt that they will adhere to a perfectly smooth surface. The same exudates find lodgment also on the previously intact surface of the lens and on the iris. All that has been said regarding the conformations and the changes which take place in the corneal precipitates is true of precipitates on the iris and lens. In some instances the only permanent remains of a previously active uveitis lie on the lens capsule behind and peripheral to the pupillary border of the iris and can only be seen during mydriasis.

Although the precipitates are generally more numerous over a triangular area of the corneal surface corresponding to the lower quadrant, usually it can be seen that no part of the surface is free. It is only that in the lower quadrant they are more densely deposited. This arrangement is due to gravity and to the downward direction of the convection currents of the aqueous in front toward the cornea. In almost every case of Krukenberg spindle the granules can be found all over the posterior portion of the cornea. The distinctive spindle-shaped area stands out because it is there that the precipitates are more densely deposited. But the lower quadrant of the cornea is not always the site of the densest arrangement of corneal precipitates. Large clumps may be, and often are, found in other places on the cornea. The exudate may be deposited on any and all of the exposed surfaces in the anterior chamber. In a number of cases opacities are also seen deposited at the posterior surface of the lens.

Usually, when the greatest source of the exudate is the iris, the sticky substance plasters

the iris to the lens forming posterior synechia, but even in eyes in which the ciliary body is primarily and mostly affected we may have, and frequently do have, posterior synechia. A posterior synechia may be formed at the pupillary border, in which case it can be easily demonstrated on dilatation of the pupil with a mydriatic. But posterior synechia formed by attachment of the retinal pigment layer of the iris in places at some distance from the pupillary border are not uncommon. This variety of attachment cannot be seen; their presence is suspected by the affect on the action of the iris. If one of these is broken by a powerful mydriatic, pieces of the pigment epithelium might be torn from the iris, leaving permanent translucent gaps which transmit light and then are easily detected by retro- or transillumination.

### Sequelæ

Anterior synechia occur more frequently in chronic than in acute uveitis. They are seen, too, in nearly every case after operation for senile cataract. It is claimed by many that they are frequently a cause of increased intraocular tension. There may be some truth in this inasmuch as anterior synechia are not infrequently associated with increased intraocular tension; but, also, many cases are seen in which, with anterior synechia surrounding the whole periphery of the iris, eliminating the entire angle, there is still no increase in intraocular tension. As a matter of fact, such eyes are usually soft, even mushy. That the products of inflammation cause a rise in intraocular pressure by blockage of the angle of the anterior chamber is another theory that is not sustained clinically. In uveitis with large amounts of debris in the angle hypotension, not hypertension, is usually found. If the hypothesis were correct glaucoma should be quite common in persons with senile depigmentation of the iris in which a considerable quantity of pigment is deposited in the angle. On the other hand, glaucoma is a complication to be expected in essential atrophy of the iris. Again, we might cite as an argument those cases of uveitis and even of exudative choroditis which are accompanied by glaucoma at the onset of the disease, long before an accumulation of debris sufficient to cause a blockage would be possible.

The occurrence of opacities in the vitreous similar to those found in the aqueous has led to the erroneous belief that the vitreous proper does not reach the lens, but that the fluid in the so-called retrolental space is continuous with and similar to the aqueous. This is not so. The vitreous body comes in contact with the axillary surface of the crystalline lens, being separated from it only by a capillary space. Plasma and cells usually can be seen in the vitreous in many mild cases and in all severe cases of uveitis whether the affection starts in the posterior or anterior parts of the uveal tract. They are probably the inflammatory exudates from the retina which has become involved in the process.

Whitish, fluffy, exudative nodules on the iris, particularly around the pupillary border, are frequently seen in subacute and chronic uveitis, less often in acute uveitis. These nodules, called Koeppe nodules, have some histologic resemblance to phlyctenules and for that reason are considered by many to be tuberculous; but this, in itself, is no good reason. Phlyctenular conjunctivitis is far from being generally accepted as of tuberculous origin. One might consider Koeppe nodules as tuberculous if and when, with the characteristic clinical course, they are found in association with other conditions which might justify a diagnosis of tuberculous uveitis; but they are certainly not pathognomonic. The same type of lesion is found in sympathetic ophthalmia, leprosy and numerous affections of the uvea of unknown origin. The diagnosis of most cases of tuberculous uveitis is made on pure supposition. Tubercle bacilli have rarely been found in a case of uveitis. Tuberculosis is accepted by many as the cause of exudative choroiditis on the basis of the questionable histologic findings in one or two instances. One may be justified in stating that a case of uveitis is probably tuberculous; but rarely, if ever, is it possible to make a positive clinical diagnosis of tuberculous uveitis.

### Etiology

**Regarding infection as the etiologic factor, there is often reasonable clinical evidence upon which to base a diagnosis; but here, too, much is taken for granted and there is no doubt that in many instances focal infection is given as a cause on the strength of mere probability. Probably never should a single infection, no matter how logical a factor, be regarded as the sole cause of the disease. Needless to state, comparatively few uveal diseases can be def-**

**initely associated with any positive etiologic factor. The most careful physical examination of the patient, blood tests, skin tests, x-rays, all the clinical and laboratory tests known, will be done without finding the slightest evidence of a possible cause.**

### Special Considerations

Frequently the first indication of insult to the iris or ciliary body is a disturbance of the pigment. Sometimes in traumatism, low grade inflammation and certain systemic diseases such as diabetes, the only manifestation is an absorption and migration of pigment. Because of trauma or of weakness from disease, the pigment-containing cells give up their contents. In diabetic patients occasionally the aqueous becomes inky with pigment on merely opening the anterior chamber. The pigment granules may adhere to parts nearby or they may float into the aqueous and finally pepper the surfaces of the iris, the lens and the cornea. After an iridectomy the pillars of the coloboma always show more or less pigment absorption. Loss of pigment from the iris or pigment deposited on the iris, lens or cornea may be the only evidence of past or present inflammation.

Often it is hard to draw a distinct line between a low grade, chronic uveitis and a degeneration. Also, certain diseases are believed to be degenerative, even familial, although it is admitted that patients suffering with such conditions may experience periods of inflammatory symptoms. It is not a rare occurrence to see definite signs of uveitis with the slit lamp and corneal microscope —K.P., pigment deposited on the surface of the lens and on the cornea, opacities in the aqueous, opacities in the vitreous and endothelial dystrophy—in a patient who shows no subjective or gross objective signs of disease. At times, careful examination with the slit lamp will disclose a few specks floating in the aqueous in an otherwise perfectly normal eye. Such eyes must be considered normal. Permanent pigmentary deposits on the lens capsule often simulate remains of the pupillary membrane. Only when associated with other signs of a previous inflammatory condition can a distinction be made in certain types of pigment deposit.

Absorption and migration of pigment is so common in elderly persons that probably it is a normal senile process. In these people the retinal pigment borders show segmentary areas of depigmentation, the migrated granules are seen scattered over the surface and in the crypts of the iris and deposited on the surface of the cornea and of the lens. The escape of the pigment is no doubt due to a weakness of the epithelial cells. When these symptoms are found in a young person they are a reasonably sure sign of disease, but when seen in a middle aged person it is extremely hard to determine whether the condition is a manifestation of the lowered vitality of early senility or the evidence of past or still active low grade inflammation. However, any one or more of the signs mentioned, if found in a person who complains of difficulty in sustained close work, ocular discomfort, pain, photophobia or slight dimness of vision, will suffice as a basis upon which to make a diagnosis of active chronic uveitis.

**Over a period of years I have collected a number of cases, all affecting women, mostly during the menopause—normal, premature or induced—but all having a history of some gynecological condition, who complain of ocular distress, pain, and inability to do any kind of close work for more than a few minutes at a time. Because there are no gross signs of inflammation the symptoms are misleading and likely to create a feeling on the part of the patient and on that of the physician, that the symptoms are purely refractive, accommodative or muscular and that there must be something wrong with the correcting lenses. This, despite the fact that no sufficient fault can be found with the glasses, the accommodation or the muscle balance to account for the distress. Examination of these persons with the slit lamp and corneal microscope discloses definite signs of low grade, chronic uveitis. The condition lasts for months or years. It seems to respond best to a weak solution of dionin locally and endocrine therapy generally.**

When I chose the term uveitis for the title of this discussion I realized, of course, that it would be possible to touch only on a few high spots of the numerous conditions included under this heading. What I hope to have brought out is that biomicroscopy has taught us that because of the so frequent involvement of the entire

uveal tract in these diseases we are justified in applying the general term uveitis in any case. Chronic, low grade uveitis and very early acute and subacute uveitis may be easily missed by ordinary gross methods of examination; but it is a frequent occurrence, so frequent that if for only the detection of this condition alone an examination with the slit lamp and corneal microscope should be made a routine part of the examination of every patient, regardless of his complaint.

MSMS

# Cerebral Atrophy in Infants and Children*

By Harold K. Faber, M.D.
San Francisco, California

Harold K. Faber, M.D.

*A.B., Harvard College, 1906; M.D., University of Michigan, 1911. Professor of Pediatrics, Stanford University School of Medicine; Pediatrician-in-Chief, Stanford University Hospitals, San Francisco. Member: American Pediatric Society, American Academy of Pediatrics, Society for Pediatric Research; et cetera.*

■ The tragedy of the neurologically or mentally defective child—the feeble-minded, the spastic, the epileptic—is all too familiar to the pediatrician, neurologist and general practitioner. As has been long known, the causes of at least the first two conditions frequently date from the time of birth, although the clinical manifestations may be delayed months or even years before they occur or are recognized. Mechanical trauma to the newborn infant resulting in intracranial hemorrhage was long held to be the main cause of birth injuries and their sequelae, but today—largely due to the observations of two Michigan physicians, Dr. Frederic Schreiber[10,11] and Dr. W. C. C. Cole[4] of Detroit—we are again returning to the earlier concept, promulgated nearly a century ago by Little[8] (whose name is attached to spastic diplegia), of anoxia or oxygen deprivation of the body tissues, as the most common and destructive factor in producing cerebral damage.

There is now a large body of experimental study and clinical observation in this field, which embraces such various conditions as carbon monoxide poisoning, nitrous oxide anesthesia, mountain sickness, high altitude aviation and severe anemia, which time does not permit me to review in detail. Four points deserve special emphasis. First, the earliest and most disastrous effect of oxygen-deprivation is exerted on the central nervous system and particularly on the cerebral cortex and basal ganglia. Second, complete anoxia causes death of the affected nerve cells within a period of three to ten minutes, the last figure probably being somewhat over the critical limits. Third, the lower nervous centers being less susceptible, the patient who has undergone irreparable damage to his higher centers may and often does survive for months or years, mentally or neurologically crippled. Fourth, repeated shorter periods of anoxia, each below the critical limits, may exert a cumulative effect and also result in permanent damage. With respect to the immediate dangers and to the sequelae of anoxia in infancy and childhood, our attention in recent years has been too closely focused on the period of birth itself. Both on a theoretical and practical basis, there are important hazards of anoxia during intra-uterine life to which too little attention has been paid. The fetus throughout the nine months of gestation is entirely dependent for his existence and for the integrity of his central nervous system upon an uninterrupted and continuously adequate supply of oxygen from the mother. Interruption of this supply for as little as three minutes can produce permanent damage to the cortical centers and for a few minutes more will produce fetal death. Table I shows the variety of risks to his oxygen supply to which he as well as the newborn infant may be subjected.

After birth and throughout the remainder of his life, the child is also subject to various risks of anoxia.

While anoxia is perhaps the commonest cause of cerebral atrophy, it is not the only one. For this reason, we have collected a series of forty-nine cases, all of which have been shown by air encephalogram to have some degree of cerebral atrophy as demonstrated by dilatation of the lateral ventricles, the subarachnoid spaces or both,

*From the Department of Pediatrics, Stanford University School of Medicine, San Francisco, California. Read at the meeting of the Michigan State Medical Society, Pediatric Section, Grand Rapids, September 19, 1941.

TABLE I. CONDITIONS CAUSING ANOXIA IN FETUS AND NEWBORN INFANT

A. Anoxic type (defective oxygenation of blood)
- I. Low $O_2$ tension in maternal blood
  - Inert gases ($N_2O$, etc.)
- II. Pulmonary abnormalities in mother (pneumonia, etc.)
  - Respiratory abnormalities in child: depressed respiration from sedatives; mucus in trachea; atelectasis
- III. Placental abnormalities
  - a. placental separation (praevia, ablatio)
  - b. occlusion of villi (syphilis)
  - c. hyperplasia and edema of villi (erythoblastosis)
  - d. compression of umbiblical cord
- IV. Right to left cardiac shunt in mother

B. Anemic type (lowered oxygen capacity of blood)
- I. Anemia
  - a. maternal anemia
  - b. fetal anemia
- II. Hemoglobin alteration
  - a. CO poisoning of mother
  - b. Methemoglobinemia of mother (sulfanilamide, acetanilid, etc.)

C. Stagnant type (slowed circulation)
- I. Circulatory failure in mother
  - Circulatory failure in fetus
- II. Peripheral vasoconstriction: maternal shock
- III. Obstruction of venous return (compression of cerebral veins)

D. Histotoxic type (toxic effect of drugs, et cetera on cells, interfering with intracellular oxygen exchange)

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and have tried to analyse, as far as the available data permit, the probable causative and contributory factors. Table II shows the kinds and combinations of clinical manifestations that were observed. A few case records, selected to illustrate the variety of etiologic factors, will be given.

*Case 1.*—J. S., nineteen months old, was admitted because of retarded development. When eight months pregnant the mother had bronchitis and pleurisy. Examination then suggested placenta praevia. On the day of delivery, which was near term, uterine cramps occurred at 1 p.m.; at 1:30 p.m. there was bleeding with passage of clots; at 4:46 p.m. nitrous oxide anesthesia was started for cesarean section and continued until 5:00 p.m., when the infant was delivered, a total of fourteen minutes. The infant was not asphyxiated, but torticollis was noted. "Queer movements" of the extremities, with opisthotonos and repeated vomiting, occurred on the second day. Gavage feeding was necessary. The child's development has been very backward in all respects. He has never walked. Examination showed the left side of the skull to be small; there was weakness of both legs with spasticity of the left. Air encephalogram showed dilated ventricles and cortical atrophy. The causative factors in this case appear to have been (1) separation of the placenta lasting about three and one-half hours and (2) nitrous oxide anesthesia for fourteen minutes. The mother's bronchitis and pleurisy may also have played a part. Again

TABLE II. CLINICAL MANIFESTATIONS OF CEREBRAL ATROPHY

Forty-nine Cases

| | |
|---|---|
| Mental deficiency only | 4 |
| Convulsive state only | 7 |
| Spastic paralysis only (all hemiplegic) | 5 |
| Mental deficiency and convulsive state | 9 |
| Mental deficiency and spastic paralysis | 14 |
| Mental deficiency, convulsive state and spastic paralysis | 8 |
| Convulsive state and spastic paralysis without mental deficiency | 2 |
| Total with mental deficiency | 35 (72%) |
| Total with spastic paralysis | 31 (63%) |
| Total with convulsive state | 26 (53%) |

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it is noteworthy that no cyanosis or apnea was noted in the infant at birth.

*Case 2.*—R. J., seventeen months old, was admitted for backwardness and peculiar movements and attitude. The labor had lasted eighteen hours when the physician gave "shots" and "gas" and broke the membranes; the cord then prolapsed and could not be replaced. Born forty minutes later, the infant failed to breathe until artificial respiration, oxygen and an intracardiac injection had been given. He had repeated attacks of cyanosis for the next week and had to be tube fed for the next two weeks. On examination, he was in almost constant opisthotonos, with writhing movements; he had hyperactive reflexes and was blind. Air encephalogram showed dilated ventricles and cortical atrophy.

*Case 3.*—J. G. was born in our hospital and was under observation from birth to the time of death. The mother had been twice married. By her first husband she had a child who is now ten years old and has never been seriously ill. The first child of her second marriage was jaundiced and anemic at birth and died at the age of two days. The second pregnancy was uneventful; the labor was short and no anesthetics were used. At birth the child was deeply jaundiced but not cyanotic and breathed at once. Examination of the blood revealed a typical picture of erythroblastosis fetalis. During the first two months the child was kept alive by seventeen transfusions, but after this the blood assumed an essentially normal character. He did not, however, develop normally. Spasticity was definite at the age of twenty-two months. At thirty months he was still unable to hold up his head and a psychometric study showed an I.Q. of 0.30. He was in opisthotonos when examined, with a spastic quadriplegia. Air encephalogram showed cortical atrophy. Against urgent advice the mother again became pregnant and, despite further advice to have a therapeutic abortion, went on to term. This child was also severely jaundiced at birth and died on the third day. Autopsy showed deep biliary staining not only of the basal ganglia but of areas in the cerebral cortex.

The etiological factor in this case is probably twofold; in fetal erythroblastosis, the commonest form of which is icterus gravis, fetal anemia impairs the oxygen carrying power of the fetal blood; and there are hyper-

plastic changes in the placental villi which may well impair the transfer of oxygen from the maternal to the fetal circulation. Degenerative changes with biliary staining are commonly found in the basal ganglia of the infant—hence the name, Kernikterus or nuclear jaundice—but they are also present in the cerebral cortex and are then demonstrable by encephalogram. As will be shown, this disease is one of the fairly common causes of cerebral atrophy.

*Case 4.*—K. K., seven months old, was admitted for backwardness and convulsions. The pregnancy was uneventful. The labor lasted only one hour and, while chloroform was used at the end, the mother was conscious throughout. At the age of five weeks the baby had a high fever of 104°; on the third day, a series of convulsions began which lasted in almost unbroken sequence for 10 days. She has been very hard to feed since then. At four months tonic spasms began which have recurred two to three times daily since. When examined the baby could not hold up her head; all the extremities were spastic, with hyperactive reflexes. The spinal fluid showed 7 cells, all lymphocytes. Air encephalogram showed cortical atrophy. Neutralization tests were positive for equine encephalitis; Western type, which was, therefore, the causative factor in this case.

*Case 5.*—W. B., a three-year-old girl, was admitted because of great backwardness. The pregnancy was uneventful except for some albuminuria during the last four months. The labor lasted fourteen hours; it is uncertain whether instruments or sedation were used. At birth the child cried at once and there was no cyanosis. She was apparently normal till the age of two months, when she had whooping cough; the paroxysms were severe and the child was, as the parents said, "quite breathless" during them. A peculiar appearance of the eyes was noted a month later but it was not until she was 11 months old that the parents clearly recognized that she was not normal. She could not sit up and could not use the right hand. On examination, it was obvious that intelligence was very low. All the extremities were weak and spastic. The left side of the head was smaller than the right. The air encephalogram showed the most extreme atrophy that we have ever seen; the cortex consisted of a thin shell between enormous ventricles and the subarachnoid space and had apparently ruptured, producing a direct communication between them. The etiologic factor appears clearly to have been anoxia from severe, prolonged and repeated paroxysms of pertussis, a disease which is particularly disastrous in young infants.

It is to be regretted that when one goes back to records, they are never as complete as one would wish. Though our histories were taken with perhaps more than ordinary care, many factors of importance have probably escaped us, partly because they were not inquired into, mainly because our informants did not have necessary information. Mothers are often not informed of the exact state of baby at birth, of the kinds of drugs or anesthetics used; or even of some of the complications of labor.

TABLE III. PRENATAL FACTORS

Twenty-five Cases

| | |
|---|---|
| Placental separation (bleeding, placenta praevia) | 5 |
| Placental hyperplasia (erythroblastosis fetalis resulting in nuclear icterus) | 4 |
| Toxemia (2 with symptoms, 1 with albuminuria) | 3 |
| Prematurity | 3 |
| Premature labor pains | 2 |
| Premature rupture of membranes (6 days antepartum) | 1 |
| Trauma to mother (falling) | 2 |
| Attempted abortion with ecbolics (unsuccessful) | 1 |
| Attempted induction of labor (unsuccessful) | 1 |
| Pneumonia in mother | 1 |
| Cardiac decompensation | 1 |
| Twin (other twin died at birth) | 1 |

The accompanying tables show the causative and contributory factors that were actually recorded, or suggested by the information available.

## Discussion

### *Prenatal Factors*

Consideration of the various etiologic factors presented shows clearly that the majority of cases cannot fairly be ascribed to incorrect obstetrical management or to mechanical trauma to the fetal head and intracranial hemorrhage. Most of them can be reduced to the common factor of anoxia, it is true, but emphasis should be placed on a fact which has been largely overlooked, that anoxia can and does occur during gestation and also during postnatal life with results just as disastrous as when it occurs during labor. There can be little question that many such episodes occur during fetal life which do not produce recognizable symptoms in the mother or which produce such fleeting or minor symptoms that they are overlooked or forgotten. One mother of a spastic child, for instance, finally remembered that about the middle of her pregnancy she had had a short bout of uterine cramps.

Uterine bleeding of slight degree and duration during pregnancy is not uncommon, and probably means some degree of placental separation which does not threaten the mother's life or give rise to the stormy signs and symptoms usually associated with that diagnosis. Our figures suggest, however, that such bleeding may interrupt the feto-maternal circulation long enough to produce serious damage to the fetal brain. The effect of trauma to the mother on the fetus probably be-

TABLE IV. NATAL FACTORS

Fifty-two Cases

| | | |
|---|---|---|
| Sedation | | 8 |
| "Shots," unspecified | 2 | |
| Moderate (dose and kind known) | 3 | |
| Heavy (evaluated by effect on mother) | 3 | |
| Anesthesia | | 14 |
| Nitrous oxide | 9 | |
| Chloroform | 2 | |
| Ether | 2 | |
| Kind unspecified | 1 | |
| Pitocin | | 1 |
| Presentation, abnormal | | |
| Breach | | 3 |
| Delivery, abnormal | | 19 |
| Difficult (instrumentation not stated) | 3 | |
| Dry labor | 2 | |
| Forceps (one high) | 8 | |
| Poor pains | 1 | |
| Version | 1 | |
| Manual dilatation of cervix | 1 | |
| Precipitate | 2 | |
| Cesarean section | 2 | |
| Prolapse of cord | 1 | |
| Cord around neck | 1 | |
| Overweight infant (3860 grams and over) | | 6 |

longs in this category. In frank cases of abruptio placentae and placenta praevia with massive hermorrhage, the fetal mortality is high and Clifford[3] has shown that the baby who survives for a few days and then dies may show extensive softening of the brain, obviously due to anoxia. Attempts at abortion and induced labor may also result in cerebral damage to the fetus by producing uterine spasm and thus temporarily interfering with blood supply. Another type of fetal anoxia, not represented in our series, has been reported by Brander[2] and others in the case of pregnant women attempting suicide by carbon monoxide poisoning; Brander's patient seen at four and one-half years was an idiot with spastic quadriplegia.

The mechanism by which toxemia of pregnancy, a factor in some of our cases, might produce cerebral damage is not always clear. The condition is a recognized cause of placental separation. Moreover, an agglutinative imcompatibility between fetal and maternal blood has been found in some cases, which might produce serious circulatory disturbances in fetus as well as in mother.

Erythroblastosis fetalis, a condition usually thought of in connection with the newborn child, is, as its name states, in reality a disease of prenatal life with profound changes not only in the fetal blood but also in the placenta.[7] The latter is always much enlarged, often to one and one-half times the normal size. The villi are enlarged, the Langhans layer persists, the stroma is hyperplastic and edematous and the vessels are diminished in number, many of them packed with erythroblasts. The conditions favorable to fetal anoxia are therefore obvious; diminished oxygen-carrying power from anemia; interference with feto-maternal oxygen exchange due to changes in the villi. Many of these infants show severe degenerative changes, with biliary staining, not only of the basal ganglia but of the brain cortex as well (a condition known as Kernikterus or nuclear icterus); and suffer, if they survive, from mental deficiency together with spastic and athetoid disturbances.

This condition can, in a sense, be prevented. It is strongly familial and all or most of the offspring of a given married couple will show it. If one case occurs in a family, the parents should be warned not to have more children. Or, if the mother should become pregnant, I believe the grounds are medically sufficient to justify therapeutic abortion; if this is not legally valid, it should be made so.

Although no case of congenital syphilis is included in the present series, the nature and extent of placental changes are such as to interfere with normal oxygen supply to the fetus; and further investigation might well be in order to determine whether anoxia, as well as actual infection, of the fetus is not a factor in intra-uterine death and also in the cerebral changes that not infrequently occur in live-born syphilitic infants.

Maternal pneumonia during pregnancy is another source of anoxia, if it is extensive enough to reduce the transfer of oxygen from the air to the maternal blood. In one of our cases, this appears to have been a factor. In pneumonia during pregnancy, oxygen therapy would appear to be more urgently indicated than at other times.

Although we had only one case of cardiac insufficiency, its dangers manifestly apply to the infant as well as the mother. The damaged heart cannot maintain the abundant blood and oxygen supply to the fetus which is so essential to its proper growth, and even brief episodes of more severe anoxia may well inflict permanent damage limited to the brain if fetal death does not ensue. The risks of pregnancy in women with mitral stenosis and other cardiac disorders with even mild decompensation should be carefully considered with reference to the baby as well as to the mother.

Finally, as indicating the association of cerebral

damage with prenatal disorders, I call attention to the occurrence in nine of our cases of congenital deformities or malformations of various sorts. The exact nature of the intra-uterine disturbance cannot be stated, but it is of interest to recall that a similar common association with placenta praevia has been reported.

### *Natal Factors*

During its progress from the uterus through the birth canal and until the head emerges, the fetus undergoes special risks to its vital oxygen supply and these are increased or supplemented by various accidents or incidents common in parturition. In general the existence and degree of fetal anoxia can be detected and measured by the slowing of the fetal pulse. During labor, the intra-uterine pressure rises with each systole of the uterus to an amount sufficient to impair the circulation of both uterus and fetus; restoration of blood and oxygen supply occurs during diastole. If uterine contractions are excessive and prolonged and diastole correspondingly shortened, fetal anoxia may reach serious proportions; the fetal pulse becomes slow and fetal life is threatened. Efforts made by the obstetricians to hasten delivery are frequently inadequate to prevent disaster to the infant. Lund[9] has shown that administration of oxygen to the mother at this time can save many babies and give the operator more time for necessary operative measures.

Forceps were used in at least eight and probably more of our cases. Neverthless, I do not regard low forceps, applied with ordinary judgment and skill, as a common or even an important cause of birth injuries to the brain. Rather their use indicates difficult labor as the true cause of fetal anoxia and cerebral damage. Indeed, the employment of forceps, by shortening the period of anoxia, has undoubtedly saved many babies from brain injury, and its benefits, in my opinion, far outweigh its potential risks. Forceps have far too often, and I believe wrongly, been blamed for intracranial hemorrhage, which in any case is an exceptional cause of the disorders we are considering today.

The special risks of nitrous oxide gas have only recently been recognized. Supposed for many years to be the safest of anesthetics, its potentialities for harm from anoxia and anoxic cerebral damage have been revealed by the studies of Courville[5] and others. It is still, however,

TABLE V. CONDITION AT BIRTH

Forty-nine Cases

| | |
|---|---|
| Apparently normal | 31 (63%) |
| Apnea, cyanosis | 10 (20%) |
| Condition not stated | 8 (16%) |

ABNORMALITIES NOTED DURING NEONATAL PERIOD

| | |
|---|---|
| Congenital deformities | 9 |
| Convulsions | 7 |
| Repeated or prolonged cyanotic attacks | 5 |
| Jaundice, early, severe | 4 |
| Vomiting | 2 |
| Opisthotonos, inability to nurse, "queer movements," bleeding | each 1 |

almost universally employed in the second stage of labor as an analgesic and not uncommonly as an anesthetic for cesarean deliveries and other operative procedures, such as episiotomy.

Keeping in mind the fact that some degree of fetal anoxia occurs even in normal labors and that this is higher in prolonged, difficult labors, it must be remembered that any mixture of nitrous oxide containing less than 21 per cent of oxygen reduces the oxygen supply below that of normal air at sea level. Fifteen per cent oxygen —a common mixture in nitrous oxide administration—is 71.5 per cent of the normal supply in air, or 28.5 per cent less than normal.

This may be harmless enough when gas is given for short periods during normal labors, but in difficult labors when the fetal oxygen supply is already impaired by circulatory interference, any additional reduction in oxygen supply may easily increase anoxia to the point of producing cerebral damage. For operative procedures during parturition, such as cesarean section or even episiotomy, when longer, deeper and uninterrupted anesthesia is required, the danger of fetal anoxia is greatly increased unless 20 per cent oxygen or more is given, supplemented if necessary by ether.

The dangers of sedation to the mother with barbiturates and other drugs have been heavily emphasized recently and a controversy is ranging at the present time over their use. It is well to remember that their effect does not increase anoxia in the baby before birth but only after birth, and then only when the drug has been given about three hours or less before delivery and when dosage has been large. There can be no question that dosages in the past have often been excessive and many infants born so heavily narcotized that their respiratory centers have been

TABLE VI. POSTNATAL FACTORS

Twenty-five Cases

| | | |
|---|---|---|
| A. Infectious | | |
| Encephalitis | | 8 |
| Measles | 3 | |
| Equine, Western type | 3 | |
| Unspecified | 2 | |
| "Meningitis," type unspecified (possibly encephalitis) | | 2 |
| Febrile disease, unspecified, with fever | | 1 |
| Pertussis | | 4 |
| Pneumonia | | 1 |
| Laryngeal diphtheria with severe serum reaction | | 1 |
| B. Non-infectious | | |
| Convulsions, severe, cause unknown, with anoxia | | 3 |
| Hemorrhagic disease of the newborn | | 1 |
| Anoxia, severe, cause unknown | | 1 |
| Trauma to head | | 3 |

depressed to the point of producing anoxia; sometimes, as Schreiber's statistics show, with permanent damage to the infant's brain. Used in smaller doses, with reasonable precautions and with consideration of the infant's welfare as well as the mother's, the risks from such drugs would appear to be more than counterbalanced by their advantages. This is Eastman's[6] conclusion and from the pediatrician's viewpoint I see no reason to disagree with him.

Breech delivery involves a special risk of fetal anoxia and was a factor in three of our cases; possibly more, since several histories of difficult labor do not state the position of the child. The risk is due to pressure on the umbilical cord by the baby's shoulders and head, and if delivery of the head is delayed, especially when the birth canal is narrow or the head large, thus increasing the compression of the cord, the results may easily be disastrous. The administration of large amounts of oxygen when the shoulders and head are engaged would seem to be definitely indicated.

Six of our babies were 8½ pounds or over at birth. Babies of this size are a special risk, both from intracranial hemorrhage and from anoxia. The anoxic risk appears to be from the extra force of uterine contractions required to expel the large head and from the prolongation of labor which increases the normal degree and duration of obstructed blood supply. In such cases, again administration of oxygen to the mother would appear to be a rational procedure. Prevention of oversize by administration of the thyroid during pregnancy has been tried by Arnold[1] with reported success. Oxytocics, especially pitocin, have fortunately been largely abandoned. They offer a very serious risk of fetal anoxia by prolonging and increasing uterine systole and so reducing, often to a serious degree, the blood-oxygen supply to the infant. From the pediatric viewpoint, they should never be used.

The effect of prolapse of the cord in producing fetal anoxia needs no special explanation. It is one of the most serious accidents of birth in its effect on the infant, since the interruption of feto-maternal circulation is apt to be nearly complete. Here too, oxygen administration would seem to be in order, but even with it, if the head is not delivered within five minutes, death or cerebral damage is probable.

Finally, plugs of mucus may occlude the bronchial passages in the newborn infant and produce anoxia. The routine care of the newborn infant should always include the use of aspiration of mucus if breathing is impeded.

I should like to point out again that the absence of apnea or cyanosis at the time of birth does not rule out the possibility of prenatal anoxia. In our series, these signs were present in only ten, or 20 per cent, of the cases and were almost certainly absent in thirty-one, or 63 per cent. Serious damage to the higher centers may be present, without damage to the respiratory center in the medulla, due to differences in vulnerability from lack of oxygen, and as long as the respiratory center is intact the infant can breathe at birth and will show no cyanosis. In general, apnea results from factors operating at the time the infant emerges; such as heavy sedation and obstruction to the air passages. If nitrous oxide, for instance, has been stopped a minute or two before delivery, especially if oxygen has been given, the infant may breathe well and have a good color.

### *Postnatal Factors*

Of the postnatal causes of cerebral atrophy, fewer fall in the category of anoxia than those of the prenatal and natal categories. The lesions of virus encephalitis may, it is true, possibly be due to intracellular anoxia, but the point is an academic one. Since, however, cerebral atrophy, followed by various degrees of spastic paralysis, by epilepsy and above all by mental deterioration, is a common sequel of equine, measles and possibly other types of encephalitis, these causative factors should be looked into when a patient with these disorders is being investigated. Equine encephalitis, especially, has become more common

and widespread of recent years; it affects the youngest infants and its sequelae might easily be mistaken for those of prenatal or natal anoxia.

Hemorrhagic disease of the newborn occurred in one case of our series, the only one in which intracranial hemorrhage was implicated so far as we could determine. This disease, due in most instances to deficiency of vitamin K, can be prevented; and with the increasing use of vitamin K, given to mothers or newborn infants, will become increasingly rare. Massive intracranial hemorrhage of the newborn is not common in our experience. While some hemorrhage from tentorial tears is not uncommonly found in dead newborn infants, these are usually small and not often sufficient to cause death from pressure. In a few instances, large subdural hemorrhages have been found, evacuated by aspiration or surgical means, and have left no permanent sequelae of brain damage. Being situated outside the brain itself, inside an expansible infant's skull, the amount of pressure is either insufficient to cause permanent damage to the brain or is so large as to cause death within a short time. Small petechial hemorrhages in the substance of the brain are common enough but in themselves not large enough to cause extensive damage to the brain. They are not infrequently an expression of asphyxia itself and the damage to the brain is due to the latter rather than directly to hemorrhage. In general, the hazards of hemorrhage are immediate rather than late; and, statistically, hemorrhage is, I believe, an infrequent and relatively unimportant cause of mental deficiency, spastic diplegia and the convulsive state.

Pertussis, on the other hand, when occurring in infants and young children, is a serious, common and very important cause of anoxic damage to the brain. Under one year this disease, which is too commonly thought of as a minor illness of childhood, carries a very high mortality rate, largely from bronchopneumonia; convulsions are frequent; of the survivors, a considerable percentage suffer from permanent cerebral sequelae, an example of which has already been cited. The factors producing anoxia are obvious: prolonged periods of expulsive expiration with deep cyanosis followed by brief periods of inspiration; increased intracranial pressure during paroxysms impairing cerebral blood supply, emphysema and pneumonia diminishing the oxygen-absorbing bed of the lung. In no condition with which I am familiar can so general and severe destruction of the cerebral cortex occur as in this disease.

TABLE VII. AGE AT WHICH CONVULSIVE STATE BEGAN

(Exclusive of cases due to acute infection)

| | | |
|---|---|---|
| Birth (continuous to admission at 1-16 months) | | 3 |
| 1-6 months | | 8 |
| 6-12 months | | 7 |
| During first year | 18 | |
| 1-3 years | | 3 |
| 4-8 years | | 0 |
| 8-9 years | | 2 |

The relative importance of anoxia in general, especially of the prenatal or natal period, in the production of the convulsive state, cannot be estimated at the present time. There can, however, be little question that anoxia is sometimes and perhaps not infrequently a causative or contributing factor. Of special interest is the delay between the original insult and the onset of the first convulsive attack, as shown in Table VII.

Severe, prolonged or frequently repeated convulsions, from whatever cause, themselves produce cerebral anoxia. The most familiar result is, perhaps, the mental deterioration with atrophy which occurs in most severe epileptics sooner or later. Cyanosis is present in most cases of convulsions during the tonic state, when respiration is temporarily suspended. The duration of anoxia in this stage may be quite prolonged and sufficient to produce serious, destructive changes in the brain; repetition of anoxic attacks results in a cumulative effect, with more and more neurons destroyed. Even a single, very severe and prolonged convulsion may cause extensive damage. A period of so-called status epilepticus can be particularly disastrous. It is not necessary to assume that vascular spasm of the cerebral vessels is responsible for the cerebral anoxia, since the prolonged apnea alone appears to be sufficient. In a few of our cases, the cause of the initial convulsions was entirely obscure, but the severity and duration of the convulsions themselves and the accompanying anoxia afforded an adequate explanation of the cerebral atrophy that ensued.

A point of interest and, I believe, of considerable importance is the fact that in a large proportion of our cases—over a third of them—possible etiological factors operated at more than

TABLE VIII. CLASSIFICATION OF CASES ACCORDING TO PERIOD WHEN CAUSATIVE OR CONTRIBUTORY FACTORS OPERATED

| | |
|---|---|
| Prenatal period only | 7 |
| Prenatal and natal periods | 7 |
| Prenatal and postnatal periods | 3 |
| Natal period only | 13 |
| Natal and postnatal periods | 8 |
| Postnatal period only | 11 |
| Total cases with prenatal factors | 17 (35%) |
| Total cases with natal factors | 28 (57%) |
| Total cases with postnatal factors | 22 (45%) |

one period, as shown in Table VIII. This observation suggests a strong likelihood of cumulative effect of insults to the brain, even when separated by a considerable period of time. This idea is supported by the experimental observations of Thorner and Levy[12] on guinea pigs, who comment on the summating effect of repeated brief periods of anoxia in producing permanent and increasing cerebral damage.

Study of this important group of cases has been impeded by the modern tendency to specialization, and the almost complete divorce of obstetrics and pediatrics. It is not merely that the obstetrician's attention is chiefly devoted to the mother and to bringing a live baby into the world; it is that the information which he might possess and the experience he has accumulated are not available to the pediatrician, who is too often in the dark as to the possible causes of the conditions he has to deal with after the child is born and placed in his hands. Naturally the obstetrician has little knowledge of pediatrics and the pediatrician little knowledge of obstetrics. As a pediatrician I feel no little presumption in even attempting to discuss the obstetrical problems involved in the subject now under consideration. I have long felt the serious need of a joint study of the problems of prenatal and natal anoxia in which the pediatrician and obstetrician could equally participate. Indeed, in my opinion, there should be a joint board of inquiry on anoxia in pregnancy, infancy, and childhood which would collect and analyze data, and make specific recommendations aimed at prevention. Among the interesting things revealed in the very small series of cases that I have analyzed, are the great variety of causation; the frequency of prenatal and natal causes and the minority of cases in which the infants were apneic at birth. It is a serious mistake to think that one explanation covers most of the cases. A comprehensive study such as I have mentioned would undoubtedly increase and better define the etiological factors, and lead to enormous improvement in our attempts at prevention. The preventive problem is far from being exclusively obstetrical, but applies to all those physicians who watch over mothers, infants and children.

In conclusion, I wish gratefully to acknowledge the assistance of Dr. Frederic A. Fender of the Stanford University School of Medicine, who placed several of the case records at my disposal and has been helpful in discussing the general problem with me. Part of the expense of the clinical investigation of the study has been borne by a grant from the Irwin Charity Foundation.

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MSMS

The diagnosis of clinically significant pulmonary tuberculosis is readily reached by the average practicing physician if certain fundamental procedures are used. One of the functions of the American Trudeau Society, the Medical Section of the National Tuberculosis Association, is to disseminate among the general medical public information about advances in these procedures. The treatment of tuberculosis in general is a specialized procedure which should at least be initiated with the counsel of a specialist. The American Trudeau Society offers a forum where practitioner, and specialist can meet to discuss the technical problems involved as well as their practical applications.

# Plastic Surgery of the Nose

## Report of Cases

By D. F. Weaver, M.D.
Associate Surgeon, Division of Otolaryngology
Henry Ford Hospital
Detroit, Michigan

D. F. Weaver, M.D.
*M.D., University of Virginia Medical School, 1932. Associate Surgeon Division of Otolaryngology, Henry Ford Hospital. Member, Detroit Otolaryngological Society, Academy of Ophthalmology and Otolaryngology. Diplomate of the American Board of Otolaryngology. Member, Michigan State Medical Society.*

From the standpoint of etiology there are three types of nasal deformities which we are called upon to repair: first, the traumatic deformity; second, the congenital deformity; and third, either a traumatic or congenital deformity which may be mild, moderate or marked in a psychoneurotic or otherwise mentally unstable individual. Of course there may be a combination of a traumatic and congenital deformity. The mentally unstable or psychoneurotic individuals frequently feel that all of their trouble is a result of a slight or moderate deformity.

For economic, social and personality reasons, deformities of the first two types should obviously be repaired. Individuals of the third type should not be refused operation for the deformity if in the opinion of the psychiatrist the operation will improve the patient's outlook. Whenever it is felt that the degree of the deformity does not justify the patient's concern or there are other reasons to suspect that the patient is unstable, psychiatric consultation should always be obtained and one should proceed with the operation only on the advice of the psychiatrist.

**No attempt should be made to persuade a patient to have a nasal plastic operation, for patients react to the same degree of deformity with a variable degree of displeasure. However, it is useless to belittle an obvious nasal deformity.**

When general anesthesia is desired, intratracheal gas-ether is the method of choice. If injection anesthesia is to be used, a combination of local infiltration with block of the various nerves in their foramina is quite satisfactory. One or two per cent novocaine is usually used for this.

Fig. 1. Traumatic nasal deformity
A wagon wheel passed over the dorsum of this patient's nose in infancy. In 1936 a cartilage graft from her own rib was inserted by another surgeon. There was improvement, but the result did not quite come up to the patient's expectations. On May 20, 1940, the nose was refractured to reduce the width. A portion was removed from the upper edge of the alar cartilages to reduce bulbosity and a graft of stored cartilage was inserted into the columella to elevate the tip. The ends of the two grafts were sutured together with silk. Recovery was uneventful. The first four photographs show the patient before and after operation by another surgeon. The last two, the present postoperative result.

When a septal defection is so marked as to interfere with the plastic result or when other indications for a submucous resection are present, the septum should be operated on. When a cartilage or bone graft is to be used, it is felt that a submucous resection should usually be done as a separate procedure. When no graft is to be used, it is usually safe to do a submucous resection at the time of the plastic procedure. When this is

*(Continued on Page 232)*

Fig. 2

Fig. 3

Fig. 4

Fig. 2. Traumatic nasal deformity

The nose was injured in childhood, but the details of the nature of the injury were not clear. On February 3, 1940, a submucous resection was carried out, and on March 18, 1940, after refracturing the nose to reduce the width, a graft of stored cartilage was inserted into the dorsum of the nose. Recovery was uneventful. The photographs show the patient before and after operation.

Fig. 3. Traumatic nasal deformity

Injured in childhood. The exact nature of the injury is not known. On May 16, 1940, a submucous resection was carried out. On April 7, 1941, after chiseling off the hump in the region of the nasal bones, an implant of stored cartilage was inserted along the dorsum of the nose and a post was inserted into the columella and adjoining ends of the implants sutured together with fine silk. It was not felt necessary to refracture the nose. Recovery was uneventful. The photographs show the patient before and after operation.

Fig. 4. Traumatic nasal deformity

History of injury to nose by bumping it on the head of another boy while running in 1935, and in 1937 he fell from a roof and fractured the nose. With each injury the hump on the nose increased in size. There was a rather marked septal deflection associated with the external deformity. On December 2, 1940, a submucous resection was carried out followed by removal of the hump, refracturing the nose, shortening the nose and making proper adjustments in the alar and upper lateral nasal cartilages. Recovery was uneventful. The photographs show the patient before and after operation.

Fig. 5

Fig. 5. Traumatic nasal deformity

The nose was injured in 1936 while playing baseball. Prior to that time the nose had been straight and there was no nasal obstruction. On July 26, 1940, a submucous resection was carried out; followed by removal of the hump, refracturing the nose, shortening the nose, and in this case it was necessary to remove the anterior nasal spine. Necessary adjustment was made in the ala and upper lateral nasal cartilages. Recovery was uneventful. The photographs show the patient before and after operation.

Fig. 6. Congenital nasal deformity

Hair lip and cleft palate has been repaired previously elsewhere. Patient was interested only in the associated nasal deformity. On January 27, 1941, the nose was refractured. The medial crus of each alar cartilage was freed from the surrounding tissue and they were sewed together in such a way as to make the nostrils vertical instead of transverse. An implant of stored cartilage was then inserted in the dorsum of the nose and the excess skin which was left after readjustment of the nostrils, was excised. Recovery was uneventful. The photographs show the patient before and after operation.

Fig. 7. Congenital nasal deformity

Patient states that his nose was not abnormally large until the age of thirteen or fourteen when it began to grow out of proportion to the rest of his face. On June 2, 1941, a submucous resection was carried out, followed by a removal of a long hump; refracturing the nose; shortening the nose a suitable amount; removing the anterior nasal spine; and a satisfactory cartilage adjustment by removing a portion along the lower edge of the upper lateral nasal cartilage and a portion from the upper edge of the alar cartilage on both sides. This patient had a strong sense of inferiority due to the appearance of his nose. This had apparently completely disappeared a short while after the operation. The photographs show the patient before and after operation.

Fig. 6 (above). Fig. 7 (below)

Fig. 8. Congenital nasal deformity
This slight deformity was of quite a bit of concern to this young lady who was apparently stable in every respect. On May 16, 1941, the hump was removed; the nose refractured, reducing the width; the nose shortened slightly. Readjustment was made in the alar and upper lateral nasal cartilages and recovery was uneventful. The photographs show the patient before and after operation.

Fig. 9. Congenital deformity and mentally unstable individual
Family history of mental disease. Patient was concerned about the appearance of her nose out of all proportion to the degree of deformity. Our psychiatrist felt that if the appearance of her nose could be improved, it might help her mental condition, so with this understanding the operation was carried out. Following the operation the patient was delighted with the result and her mental outlook was changed tremendously and she appeared perfectly normal for a few months. Unfortunately, however, after about six months symptoms developed sufficient to make a diagnosis of early dementia praecox. The photographs show the patient before and after operation.

*(Continued from Page 229)*

done a separate operative setup including a complete change of gowns, gloves and instruments is used.

Since the operative technique has been described in detail in numerous publications and textbooks on plastic surgery, our technique will not be described at this time except in a general way. Each case presents an individual problem and each step has to be adapted to the particular problem which is presented.

Local infiltration and nerve block was the anesthesia used in all of these cases. The hump was removed by means of a saw in most cases. In one a chisel was used. A fine rasp was used to smooth the rough edge after removal of the hump. The nose was refractured in all cases by sawing through the nasal process of the superior maxilla, the saw being introduced through an intranasal incision along the upper edge of the alar cartilage. When a graft was used, it was inserted through incisions made in the skin along the edge of each nostril. These incisions met in the midline at the upper end of the columella nasi. Shortening of the nose was carried out by removing a wedge-shaped portion of the anterior end of the septum. Also a strip was removed from the lower edge of the upper lateral nasal cartilages and when the tip appeared to be bulbous, a portion was removed from the upper edge of the alar cartilages. A metal splint was applied in each case and allowed to remain at least a week. The splints were removed for examination of the skin each day. Intranasal vaseline gauze packs were inserted at the time of operation and removed in about twenty-four hours.

A group of cases, representative of the types mentioned, is presented.

## Medical Postgraduate Education in Michigan

By Howard H. Cummings, M.D.
Ann Arbor, Michigan

▪ Fifty years ago doctors of medicine in our State brought to their patients the knowledge and training in diagnosis and treatment of disease which was acceptable for their time. Most of these practitioners continued, as long as they practiced, to use the same methods taught them while students in medical schools. How meager this knowledge was may be judged by contrasting the training offered by the medical schools of one half century ago with that of today. Fifty years ago, students attended a series of lectures and demonstrations for six months and returned the following year to hear the identical lectures again. Now, the preparation for the practice of medicine requires a preparatory period of three or four years in a literary school, four years of medical studies, one year of internship, and an additional period of from three to five years for training in a special field of medicine. Twelve months as against eight to twelve years!

**The discoveries of Lister and Pasteur in the nineteenth century received so much commendation and so revolutionized medical practice that many progressive medical men in our country rushed to Europe to gain first hand information about the new methods. For over twenty-five years this pilgrimage of American physicians to London, Edinburgh, Paris, Berlin and Vienna continued. Upon their return to the United States, these doctors became the leaders of the profession and many established themselves as teachers and practitioners in special fields of medicine. That was the accepted method of obtaining postgraduate medical education. But now, under their leadership, the postgraduate training may be secured at home.**

So rapidly has medical knowledge advanced in the past twenty-five years that no man can comprehend or put into use all of the scientific discoveries of this period. Chemistry, physics, biology and numerous other branches of science have made valuable contributions to medical knowledge. Clinical and experimental medicine have added a wealth of useful knowledge but yet there remain thousands of unsolved medical problems. Each year brings the answer to some of these perplexing questions, but until the practicing physicians know the solution and put it into practice, their patients fail to receive modern medical treatment.

**A few examples of the fruits of recent research in medicine and their benefits to mankind might be enumerated: The causes and treatment of cancer have puzzled scientists and physicians for years, but recently progress has been made. The most startling discovery was based on the daily experience of physicians — that cancer develops frequently during the sexual changes of the climacteric period. Altered secretions of the sex glands have been found to play an important part in the development of certain cancers. The clinical application of this discovery is being tested and gives promise of some startling results. In the meantime, surgery, radium and x-ray are curing thousands of cancerous patients and alleviating and holding in check cases seen late in the course of the disease.**

The appearance of the surgeon in the treatment of tuberculosis has proven most beneficial and is saving thousands of lives, by offering hope to that large group of moderately advanced tuberculous individuals. Formerly these patients progressed slowly to death and in so doing infected those associated with them. Now through surgery many are restored to health and usefulness.

The story of research in the field of glands of internal secretion and the vitamins is a long one and chapters are being added each year. Proved and tested products of this work are aiding every physician in maintaining and restoring health to his patients.

The recently discovered vitamin K has saved many newborn infants from hemorrhagic dis-

eases during the first ten days of their precarious lives, and a wholesome, vitamin-laden diet is aiding mothers to carry their unborn children and to give birth to strong babies capable of surviving the hazards of infancy and childhood.

Only a few of the subjects of major importance both to the physician and to his patients are studies of the metabolic diseases, especially diabetes; research on diseases of the heart and circulatory system; newer conceptions of the causes of rheumatism and arthritis; chemical studies of the body fluids; new methods of treatment of blood diseases; vast extension of the field of x-ray both in diagnosis and treatment; successful chemical attacks by sulfanilamide and its derivatives on certain bacteria which overpower, in many cases, the resistance of the human body.

**About fourteen years ago, the physicians of Michigan, realizing the rapid advancements in the science of medicine, requested the Michigan State Medical Society in conjunction with the medical schools of Wayne University and the University of Michigan to formulate a plan of postgraduate medical education. From this request has developed by methods of trial and error the present Michigan plan of postgraduate medical education. Briefly this plan sets up teaching centers in nine regions and lectures are given in Ann Arbor, Flint, Battle Creek, Kalamazoo, Mt. Clemens, Grand Rapids, Jackson, Lansing, Saginaw, Bay City and Traverse City. In some regions, as in Saginaw and Bay City, also in Jackson and Lansing, the fall series of lectures is given in one city and the spring series in the other. Plans are being formed for five teaching centers for the Northern Peninsula.**

One day of each week for four weeks both in the fall and the spring, physicians gather in their region to hear medical lectures and to join in the subsequent discussions. Sixteen different medical subjects are presented each year by teachers who have special knowledge and training in their field of medical practice.

For physicians who cannot attend the extramural lectures in their district, a composite one-week course, covering the sixteen subjects discussed at the teaching centers, is given each spring in Detroit.

Intramural courses for doctors who are especially interested in certain branches of medical work are given each year in both medical schools of Michigan. These courses run from one week to several months, and arrangements can be made for longer courses of study.

### Response to Postgraduate Program

A survey made about seven years ago showed that 30 per cent of Michigan's doctors had taken some formal postgraduate training since graduation. Today over 50 per cent of Michigan's doctors are taking postgraduate work each year. If other means of obtaining modern medical knowledge and keeping abreast of the times such as attendance upon hospital staff, county society, State society and national meetings are considered, over 80 per cent of Michigan physicians are doing postgraduate work each year.

Each fall and spring, you may see in your local paper an announcement similar to this one.

"The public is requested to coöperate with the profession in refraining from all requests for nonurgent medical services between the hours of 10 a.m. and 3 p.m. on the next four Mondays.

"This is to enable all of the physicians to attend the postgraduate medical courses being on those days at the City hospital. For urgent and emergency calls, your physician, who will probably be in attendance, may be reached by calling the Nurses' Home at City Hospital."

### Suggested Education of Laymen

If your family doctor has a habit of reading medical journals or of writing articles for medical journals; if he causes you some inconvenience by attending hospital staff meetings, county medical society meetings, State medical society meetings or National medical gatherings; if each fall and spring he is away from his practice for one day each week for four weeks, you are to be congratulated. You have a good doctor. He will bring to you and your family the latest and best methods of restoring you to health or of maintaining your present good health. Your doctor is a progressive man, who has the welfare of his patients at heart. He is to be trusted with your two most valuable possessions, your health and your life.

# OUR ROLE IN NATIONAL DEFENSE

President's Page

BY the time this number of THE JOURNAL reaches our members, or soon thereafter, they will receive copies of the special Enrollment Form for the Procurement and Assignment Service. It is essential that every doctor complete this form and return it at the earliest possible moment.

The Procurement and Assignment Service was sponsored by the medical profession as a central agency for all divisions of governmental service. Its purpose is to classify physicians in order that they may be available for assignments of their own preference, insofar as possible, and for which they are specially qualified. Every consideration is being given to the retention of physicians in essential positions and the avoidance of undue dislocation in medical practice in communities. The Service has received the warm-hearted reception of the medical profession and it is to the advantage of physicians to make a prompt return.

The information on the Enrollment Form will determine the status under the Selective Service Act of physicians who come under the jurisdiction of the latter agency. Local boards will consult the Procurement and Assignment Service, and a physician's enrollment will indicate his desire to serve in the Nation's defense program, thus insuring his professional status.

An article giving full details was published in the February 21 number of *The Journal of the American Medical Association.* Our members are urgently advised to consult this article for complete information.

Henry R Carstens

President, Michigan State Medical Society

# EDITORIAL

## THE COUNTY SOCIETY SECRETARY!

### An Accolade

■ The recent resignation of two veteran county society secretaries impresses upon those interested in organization the vital position held by the county society secretary.

The work of Wilfrid Haughey, M.D., of Calhoun and L. E. Holly, M.D., of Muskegon, who have asked to be relieved of their offices, are excellent examples of the active leadership attendant to that position. It is almost axiomatic that a live society has a kinetic secretary. With due credit to the officers and the general membership, the real burden of keeping up activity usually rests upon the secretary.

To list all the duties of this officer would be too encompassing, but a few may be well considered: keeping membership records, collecting dues, arranging meetings with all their divergent labors, acting as contact agent between the county society and the state and national organizations as well as with the newspapers and lay groups, taking and transcribing minutes, and acting as mediator. Any one of these duties often is a Herculean task, but to the good secretary—just part of another day's work.

The officers of the State Society extend to Drs. Haughey and Holly an appreciation for a good job well done and to all other county society secretaries thanks and the hope that their members will appreciate the importance of the chores and the workman.

## PROGRESSIVE ACTION

■ The Child Welfare Committee of Michigan State Medical Society has been a most active and progressive study group. A recent resolution adopted by this Committee demonstrates the valuable foresight of these men.

Taking cognizance of the recent sudden shift of population in Michigan caused by increased war industrial activity and necessary readjustments, and of the development of congested areas which over-tax the ordinary health control measures and organizations, it recommended to The Council of the Michigan State Medical Society that the State Department of Health be requested to appoint a committee with the following purposes:

"1. To carry on a study of the needs arising from the above mentioned situation;

"2. To draft a Uniform Code of Procedure for the prevention of epidemics and for the control of communicable disease;

"3. To make every effort to communicate such Code to all interested parties, including physicians, local health officers, sanitary engineers, nurses, et cetera; and

"Whereas, this is a problem which calls for complete coöperation and coördination between a number of interested groups; therefore be it

RESOLVED, That this Committee-to-be-appointed include representatives of the Michigan State Medical Society, the State Department of Health, the Michigan Branch of the A.A.P., the State Nursing Association, and the Department of Public Instruction, with the privilege of calling in for consultation or advice any or all persons or groups they may deem advisable or necessary."

There was no hesitation on the part of The Council to confirm this Resolution. It is expected that establishment of such a committee will soon be achieved.

# ✶ YOU AND YOUR BUSINESS ✶

## OCCUPATIONAL DEFERMENTS OF DOCTORS OF MEDICINE

Local Draft Boards must consult the Procurement and Assignment Service for information on any selectees who are doctors of medicine; further, it is mandatory that this information be considered by the Draft Board in determining the registrant's classification.

An order to this effect signed by Lewis B. Hershey, Director, National Selective Service System, was sent to all Local Draft Boards on January 28, 1942, as follows:

Information previously distributed by this Headquarters clearly indicates an over-all shortage of medical doctors, dentists, and doctors of veterinary medicine in the Nation. Since war was declared, the shortage of these professional men has become acute. It is now manifest that every qualified doctor, dentist, and veterinarian must serve where he can render the greatest professional service to the Nation.

In order to accomplish this purpose, the President, by Executive Order, has formed the Procurement and Assignment Service, under the Office of Defense Health and Welfare Services. This Service was formed primarily for the purpose of gathering and making available information with respect to the supply of qualified practitioners in the fields of medicine, dentistry, and veterinary medicine, with a view of securing the most effective allocation of medical manpower as indicated by the requirements of the armed forces, civilian needs, and industrial medicine.

To work with the headquarters of this Service in Washington, there is being organized a committee for each Corps Area in the Continental United States. Each committee will consist of five doctors, two dentists, and one veterinarian. The committees have been accepted as advisors to the nine Corps Area Surgeons, to the Naval District Surgeons, and to the Regional Medical Officers of the Office of Civilian Defense, and will operate not only through the subdivisions of the medical, dental, and veterinary associations, but also with the profession at large, in securing information and giving advice.

When considering the classification of any registrant who is a qualified medical doctor, dentist, or doctor of veterinary medicine, the Director of Selective Service desires that local boards, through the State Director, shall consult the Procurement and Assignment Committee of the Corps Area for information as to the availability of qualified medical doctors, dentists, and doctors of veterinary medicine in the community. This information shall be considered by the local board in determining the registrant's classification. The executive Order referred to in no way affects the authority of the Selective Service System to classify registrants. The procedure has been established for the purpose of making such information available to local boards.

The Procurement and Assignment Service has appointed a P. and A. Committee for the Sixth Corps Area (Michigan, Illinois, Wisconsin) to aid the Local Draft Boards in the above matter. P. R. Urmston, M.D., Davidson Building, Bay City, is the Michigan representative on this Committee.

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## NATIONWIDE IMMUNIZATION AGAINST DIPHTHERIA AND SMALLPOX

A major effort to secure the immediate immunization of 100 per cent of all children over 9 years of age against diphtheria and smallpox (850,000 in Michigan) has been recommended by the Child Welfare Committee of the Michigan State Medical Society. This is an opportunity, open to every practitioner in the state of Michigan, to help prevent disastrous epidemics in this state, particularly in those areas which have new defense plants and war activities. The profession's wholehearted coöperation in this immunization campaign, which is nationwide in scope, is urged by the Michigan State Medical Society.

A special bulletin, outlining suggestions for the conduct of this work by county medical societies, is being mailed by the MSMS Child Welfare Committee, which on February 4 adopted the following resolution:

WHEREAS, The Child Welfare Committee of the Michigan State Medical Society endorses a general program of childhood immunizations; and

WHEREAS, Such a program is always essential to the best welfare of children even in normal times; and

WHEREAS, Present defense activities occasion great shifts and congested concentrations in population, with resulting dislocation of normal activities and health safeguards; and

WHEREAS, In a number of Michigan communities such health safeguards and necessary control measures

have been disrupted which may result in deadly and ever-spreading epidemics unless preventive measures are effectively inaugurated and pursued at this time; therefore, be it

RESOLVED, That the Child Welfare Committee of the Michigan State Medical Society recommends that a major effort be made in the present serious emergency to secure the immediate immunization of 100 per cent of all children over 9 months of age against diphtheria and smallpox, for the health and safety of our State.

## CIVIL RIGHTS OF PERSONS IN SERVICE — A DIGEST

*Rents:* During period of military service, no eviction from dwelling (not office) where rent does not exceed $80.00 per month, is permitted.

*Installment Contracts, and Mortgages:* No rescinding or terminating contract for purchase of real or personal property—or mortgage—where soldier or sailor has made a deposit or payment prior to October 17, 1940, except by court action or by mutual agreement.

*Insurance Premiums:* Administrator of Veteran Affairs guarantees payment of premiums of insurance up to $5,000.00, which may be repaid within one year after leaving service. (An added $10,000 of government insurance is offered each soldier and sailor.)

*Income Taxes:* If person in service is unable to pay the tax, it is deferred without interest or penalty for a period extending not more than six months after termination of service.

*Taxes and Assessments on Real Property:* If person in service is unable to pay the tax or assessment, no sale of property may be made to enforce collection, except on leave of court which may stay such sale for six months after termination of military service. If sale is completed, soldier or sailor has right to redeem property at any time not later than 6 months after end of military service.

*Public Lands:* Rights to homesteads, desert land entries, mining claims, mineral leases, and irrigation rights, held by persons in military service, shall not be forfeited or prejudiced during term of service.

*Detailed information* on the Soldiers' and Sailors' Civil Relief Act of 1940, approved by the President on October 17, 1940, was published in the *JAMA,* January 24, 1942, page 306. This complete analysis of the law is recommended to physicians who plan to enter the armed forces of the United States.

## PROPOSED LIBERALIZATION OF SOCIAL SECURITY ACT

The Social Security Board intends to recommend to The Congress that the Social Security provisions be extended to include:

(1) disability allowance equal to the present unemployment allowances for periods of sickness; and

(2) additional allowances of $3.00 per day to the worker when either he or his dependents are hospitalized.

The hospitalization benefits would be in the form of an indemnity or payment to the employed worker upon the receipt of evidence that hospital care has been received. It is assumed that the workers might assign or authorize the payment of the cash directly to the hospital or to the physician who attended him—or to others than the hospital or physician.

Participation in the hospitalization benefits would be universal and compulsory for persons who hold Social Security numbers.

Will this inclusion of per diem allowances to 115,000,000 persons in the United States, through the Social Security Board, be the entering wedge for federalized hospitalization and medical care?

## LOW MORTALITY RECORD FOR 1941

The Metropolitan Life Insurance Company advises that the unprecedentedly low figure of 7.4 per thousand wage earners and their families was obtained among the 16½ million persons insured in the industrial department of the Metropolitan. This was more than 2 per cent below the previous minimum. This new health record speaks volumes for the continuance of the present health system in America—the private physician-patient relationship.

## GUARANTEEING HOSPITAL STAFF POSITIONS

Since January 12, 1942, the following Michigan hospitals have advised the Medical Preparedness Committee of the Michigan State

*(Continued on Page 240)*

# These are the Reasons why we say "Try S-M-A"

- Physicians will find that S-M-A* is not a "compromise formula." It is a complete milk formula for infants deprived of human milk.
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*(Continued from Page 238)*

Medical Society that the hospital staff positions in their institutions, now held by doctors entering the armed forces of the United States, will be retained upon the physicians' discharges from active military duty. The following replies were received up to February 12:

*Ann Arbor*—University Hospital—H. A. Haynes, M.D., Director—guaranteed

*Charlotte*—Hayes-Green-Beach Hospital—B. P. Brown, M.D., Chief of Staff—guaranteed

*Crystal Falls*—Iron County Infirmary—Miss Elizabeth Carlson, Director—guaranteed

*Detroit*—Herman Kiefer Hospital—Bruce Douglas, M.D., Commissioner—guaranteed—St. Joseph Mercy Hospital—Ed. Maire, M.D., Pres. of Staff—guaranteed

*Hillsdale*—Hillsdale Community Health Center—W. W. Sawyer, M.D., Secy. of Staff—guaranteed

*Lansing*—St. Lawrence—C. S. Davenport, M.D.,—Secy. of Staff—guaranteed

*Lapeer*—State Home & Training School—F. R. Hanna, M.D., Supt.—guaranteed

*Marquette*—St. Mary's Hospital—Geo. I. Keskey, M.D., Secy. of Staff—guaranteed

*Northville*—Maybury Sanatorium—Bruce Douglas, M.D., Commissioner—guaranteed

*Mt. Clemens*—St. Joseph's Hospital—J. J. Reichman, M.D., Secy. of Staff—guaranteed

The first list of hospitals was published in the February, 1942 MSMS Journal, page 144.

Additional replies, as received, will be published in the MSMS Journal from month to month.

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## MALPRACTICE IS CONTAGIOUS

"*Malpractice suits* have all the characteristics of a contagious disease inasmuch as they are sporadic, endemic and, at times, epidemic. During the past ten years of economic stress and social unrest the 'suing habit' has reached a peak."

—Paul E. Craig, M.D., Doctors, Juries and Judgments, *The American Journal of Medical Jurisprudence,* September, 1938.

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## 63,328 BEDS IN VETERANS' ADMINISTRATION HOSPITALS

During the past twenty-one years, a total sum of $208,723,029 has been made available for the construction of facilities for veterans. As of June 30, 1941, 61,849 hospital beds were under the control of the Veterans' Administration. As the result of such construction funds now available, all of which are definitely obligated or allocated (including $297,000 for one hundred additional general beds in the Veterans' Hospital at Dearborn, Michigan), and the work now under way or soon to be started, it is estimated that new construction during the fiscal years 1942 and 1943 will result in 1,479 additional beds, making a total of 63,328 beds in Veterans' Administration hospitals.

As of October 31, 1941, a total of 51,911 World War Veterans were receiving treatment in the ninety-one Veterans' Hospitals in use. Of this total, 77 per cent were being treated for nonservice disabilities, according to Federal Legislative Bulletin No. 13 of the Bureau of Legal Medicine & Legislation, AMA.

According to Brigadier General Frank T. Hines, Administrator of Veterans' Affairs, in testifying before a subcommittee of the U. S. House of Representatives Committee on Appropriations, nearly 8,000 beds are vacant in Veterans' Hospitals at this time.

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MEDICINE—Two Weeks' Intensive Course will be offered starting June 1st. Two Weeks' Course in Gastro-Enterology will be offered starting June 15th. One Month Course in Electrocardiography and Heart Disease every month, except December and August.
FRACTURES AND TRAUMATIC SURGERY—Two Weeks' Intensive Course will be offered starting May 4th. Informal Course available every week.
GYNECOLOGY—Two Weeks' Intensive Course will be offered starting April 6th. Clinical and Diagnostic Courses every week.
OBSTETRICS—Two Weeks' Intensive Course will be offered starting April 20th. Informal Course every week.
OTOLARYNGOLOGY—Two Weeks' Intensive Course will be offered starting April 6th. Clinical and Special Courses starting every week.
OPHTHALMOLOGY—Two Weeks' Intensive Course will be offered starting April 20th. Five Weeks' Course in Refraction Methods starting May 11th. Informal Course every week.
ROENTGENOLOGY—Courses in X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

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**Bay County**

Thirty-five members of the Woman's Auxiliary of the Bay County Medical Society met at the home of Mrs. A. L. Ziliak on Wednesday, December 10, for a dinner meeting.

A brief business meeting was conducted by Mrs. W. R. Ballard, president, in which she presented a report on the recent mid-year state auxiliary board meeting held in Grand Rapids. The members voted to wait until after the state meeting next fall before making any revisions in the constitution.

Mrs. Walter S. Stinson, Program Chairman, announced that in connection with our year-long program on nutrition, the public meeting would be held January 7, at the Elizabeth McDowell Bialy Memorial Nurses' home at 8 o'clock in the evening with Dr. John Sheldon, of the University of Michigan medical school faculty, speaking on "Allergies."

Mrs. Harold Shafer was appointed chairman of the group's scrapbook. Clothing, to be distributed through the Civic League, was collected by the chairman, Mrs. F. T. Andrews.

The Auxiliary held its main meeting of the year which was free of charge and open to the public, on Wednesday evening, January 7, at the Elizabeth McDowell Bialy Memorial Nurses' Home.

Carrying on the program of nutrition study as a contribution to national defense, Mrs. W. R. Ballard, president, introduced Dr. John Sheldon, of the University of Michigan Hospital, Ann Arbor, who gave an illustrated lecture on "The Modern Concepts of Allergic Diseases."

The Woman's Auxiliary sponsored the lecture which was most interesting, and well over 200 persons attended. Mrs. Paul L. DeWaele, Corresponding Secretary

**Ingham County**

The Auxiliary of the Ingham County Medical Society met for a Christmas tea at the home of Mrs. Earl I. Carr. "Christmas in Many Lands" was the theme of the tableau presented.

On the program committee for the event were Mrs. C. S. Davenport, Mrs. T. I. Bauer, Mrs. W. J. Cameron, Mrs. L. G. Christian, and Mrs. K. W. Toothaker.

Mrs. Harold Wiley, president, and Mrs. Harry Weinburgh presided at tea. Mrs. M. C. Loree was chairman of the social committee for the day, aided by Mrs. Frank B. Heckert and Mrs. R. J. Himmelberger.

At the business meeting a substantial sum of money was voted to be given to the Ingham County Red Cross.

**Ionia County**

The Woman's Auxiliary of the Ionia-Montcalm Medical Society met Tuesday evening, January 13, at the Manor in Ionia for a dinner. After the dinner the women went to the home of Mrs. V. F. Kling where they held a brief business meeting. The remainder of the evening was devoted to Red Cross work.

The Auxiliary met Tuesday, February 10, at the Belding Home cafe for a 7 p.m. dinner. Following the dinner, they went to the home of Mrs. VanLoo for a business and social meeting. Red Cross first aid was discussed at the meeting. Members of the auxiliary were invited to attend a tea given by the Grand Rapids auxiliary at the Women's City Club on Wednesday, February 11.

**Kent County**

The annual dinner dance given by the Women's Auxiliary of the Kent County Medical Society was held December 6 at the Peninsular Club. Gay holiday decorations were of holly, pine sprays, and red candles.

The guest speaker at the regular monthly auxiliary meeting, on December 10, was Mrs. Wm. J. Butler, president of the Michigan State Medical Auxiliary. Mrs. Butler gave a very interesting talk on her hobby, "Sculpturing." She traced the history of sculpture through the ages, and accompanied her talk with many fascinating illustrations and a demonstration of clay modeling.

Preceding her talk on sculpture, Mrs. Butler reviewed the aims of the auxiliary in its work on the national nutrition project.

The Auxiliary held a luncheon meeting on January 14, 1942 at the Woman's City Club. Mrs. Charles F. Ingersoll presided at the business meeting in which members of the auxiliary decided to organize a class to take the Red Cross course in home nursing. The auxiliary also voted to invest part of its Benevolence Fund money in the purchase of seven defense bonds of the $100.00 denomination.

Mrs. Virgil E. Stover introduced the program speaker, Mr. L. E. Murphy of the Federal Bureau of Investigation. Mr. Murphy spoke on the "F.B.I. in Relation to Defense." After outlining the organization and activities of the F.B.I., he opened the meeting to questions. Katharine W. Brace, Press Chairman

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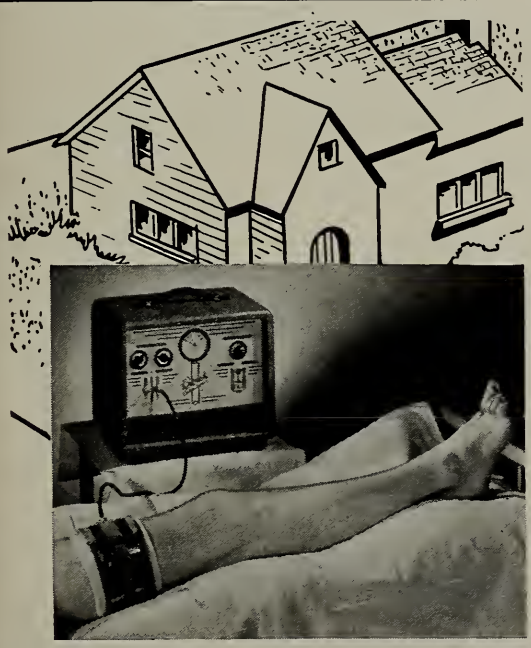

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## BLOOD TESTS FOR SYPHILIS HIT MILLION MARK IN '41

Blood tests hit the million mark in 1941 for the first time in Michigan. The total of all laboratory examinations for syphilis performed in public health and in private registered laboratories was 1,050,268. A few thousands of these examinations were microscopic tests and spinal fluid counts but the rest were blood tests.

The first big upsurge in blood tests began after the premarital examination law went into effect in 1937. In 1939, a blood test was required by law for every expectant mother. Another boost in blood testing came when Selective Service required blood tests for all men called for Army examination. Fifteen per cent of last year's tests were due to Selective Service requirements.

About 40 per cent of the laboratory examinations for syphilis were made in the four State Health Department laboratories at Lansing, Houghton, Powers and Grand Rapids. About 25 per cent were made in the city health department laboratories of Detroit, Jackson, Kalamazoo and Flint. The remaining tests were performed in private laboratories registered with the State Health Department. On January 1, 1942, there were 148 laboratories registered to perform examinations for syphilis.

## DEPARTMENT PREPARES FOR NEW EMERGENCIES

When outbreaks of epidemic disease occur in Michigan, the State Health Department is often called upon to send out a flying squadron.

The emergency may require a single epidemiologist. Or it may require several physicians. Quite often two or three are sent; in an all-out response the Department could send ten physicians from its own staff and in addition could call upon local health directors. Such a need has not yet presented itself.

The Department is ready to form several emergency squads if evacuation of civilians becomes necessary in Michigan or if any cities are bombed. For months the State Health Department has had semi-confidential reports on the methods of health protection which England has developed on a trial and error basis.

In addition to its staff physicians, the Department has a trailer laboratory unit which can be taken right to the scene of an emergency. In this laboratory specimens can be cultured and examined with no delay.

If necessary, Department physicians can be flown to the scene of an emergency in one of the state's airplanes. Vaccines can also be rushed to local health departments by airplane and in this war year of 1942 with continued movement of workers and soldiers, the Department is planning to fly vaccines or antitoxins wherever necessary. Emergency trips with vaccines are also made from time to time by the Michigan State Police.

Safe water supplies are one of the important protections for public health but sometimes emergencies turn a safe water supply into a threat to the whole community. For those emergencies, the Department keeps on hand portable chlorinators which can be attached to a water main and kept in operation until repairs are made. Usually one or two of the four emergency chlorinators are in operation somewhere in the state.

The Department has a standing arrangement with a Michigan manufacturer of chlorine so that a telephone call will start a truck with cylinders of chlorine to any place in the state where there has developed a water supply emergency. Engineers of the Department are on day or night call for emergency duty, and not infrequently they keep a local water works in operation in case of the death or disability of an operator.

## DEPARTMENT TO MAKE TETANUS TOXOID

The Michigan Department of Health is planning to make tetanus toxoid for free distribution.

Money to begin manufacture and distribution of the toxoid is being requested from state war funds. Commissioner Moyer has submitted to Harry F. Kelly, chairman of the State Administrative Board Defense Committee, an emergency request for $15,698 to establish a manufacturing process and to produce 100,000 doses of tetanus toxoid. Through previous test production the laboratories of the State Health Department are already licensed to make the product by the National Institute of Health of the United States Public Health Service.

First use of the new toxoid will probably be made in defense areas for industrial workers and for children.

The State Health Department has been asked by the child welfare committee of the Michigan State Medical Society to produce combined tetanus-diphtheria toxoid, and the committee recommends that the combined toxoid be used by physicians in immunizing children. Notice of the committee's action was sent to Dr. Moyer by the committee chairman, Dr. Frank Van Schoick, of Jackson. Similar support came from

*(Continued on Page 246)*

# PROFESSIONAL ANNOUNCEMENTS


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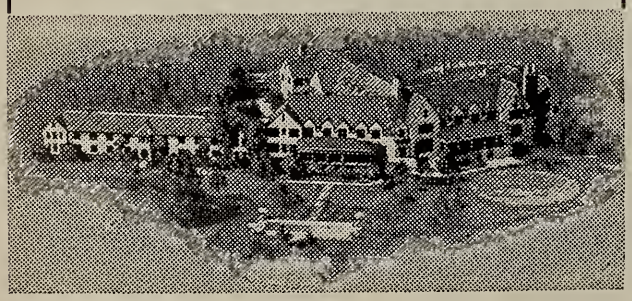


*(Continued from Page 244)*

the Michigan branch of the American Academy of Pediatrics. Representing the pediatricians of the state, Dr. W. C. C. Cole, of Detroit, Michigan branch chairman, wrote to Dr. Moyer: "I should like to recommend and urge that your department take appropriate action to make this therapeutic agent universally available."

## LOBAR PNEUMONIA CASES AT NEW LOW WINTER LEVEL

Pneumonia in Michigan is dropping to new low monthly totals for the middle of the pneumonia season. Michigan Department of Health figures show that in January only 306 cases of lobar pneumonia were reported as compared with 390 in January last year and 500 to 900 cases for the month in former years.

Other forms of pneumonia were not reportable until 1939, making long-range comparison possible only for lobar pneumonia. Cases reported in mid-winter this year are only as many as have been reported in June and July of other years.

No explanation of the low level of pneumonia has been made. Both cases and deaths have declined since the 1938-39 season, but the decline in deaths in recent years is attributed chiefly to the effectiveness of serum and sulfonamide drug treatment. For the 1940-41 season, the lobar pneumonia deaths totaled 2,632. Formerly the deaths ran from 3,000 to 6,000 a season.

## BULK OF POPULATION NOW NEAR CANCER CENTERS

The bulk of Michigan's population is now within reasonable distance of one of fourteen of the hospitals in the state approved by the American College of Surgeons for treating cancer.

Two more Michigan hospitals were provisionally approved in 1941—the James Decker Munson Hospital in Traverse City and the Alexander Blain Hospital in Detroit.

As yet the Upper Peninsula does not have a hospital approved by the American College of Surgeons for cancer treatment.

Cancer deaths reported in 1940 to the Michigan Department of Health totaled 6,236, the second successive year that the total has been more than 6,000.

## POSTGRADUATE OBSTETRICS COURSE OFFERED IN MAY

Another two-week postgraduate course in obstetrics is offered for four physicians beginning May 18, 1942, at the University Hospital at Ann Arbor. It is under the combined sponsorship of



*Say you saw it in the Journal of the Michigan State Medical Society*

the University of Michigan Department of Postgraduate Medicine and the Michigan Department of Health. Applications should be sent now to Dr. Lillian R. Smith, director of the Bureau of Maternal and Child Health, Michigan Department of Health, Lansing. There is no fee for the course.

## VENEREAL DISEASES STAFF EXPANDED

Dr. Henry G. Steinmetz, acting director of the Genesee County Health Department, has been named assistant director of the Division of Venereal Disease Control of the Michigan Department of Health.

The appointment brings up the Department's venereal disease staff to its former strength of two physicians. Dr. Steinmetz will spend most of his time in the field, particularly in military areas where the Department is coöperating in control measures.

Dr. Steinmetz was for six years a staff physician at the Logansport State Hospital at Logansport, Indiana, in charge of syphilis treatment. Later he was a health officer in Indiana and then took specialized training in venereal disease control.

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The right of Connecticut physicians to disseminate birth control information to their patients may soon have its second State Supreme Court review in two years. Last March a single-handed attack on Connecticut's birth control ban was launched by Dr. Wilder Tileston, clinical professor of medicine at Yale University Medical School, who asked the Superior Court of New Haven county for a declaratory judgment on the question of his providing contraceptive information to three women under his care, saying that their lives would be jeopardized by pregnancy. Last month Superior Court Judge Earnest C. Simpson reserved the case for hearing before the Supreme Court of Errors. By this transfer, a Superior Court hearing and a subsequent appeal by the losing side to the Supreme Court has been avoided.

Abraham S. Ullman, state's attorney, was named as the defendant inasmuch as he would be called upon to prosecute Dr. Tileston in the event that the physician actually disseminated such birth control information in violation of existing state laws. Fred Trotta, city attorney of New Haven, is also a defendant. Judge Simpson's action in reserving the case to the Supreme Court followed a stipulation signed by counsel for both parties that they were in agreement with regard to the facts involved and that a legal determination of Dr. Tileston's rights under the statutes was all that remained to be determined.

In 1940 the Supreme Court upheld a law enacted in 1879 which forbade the use of contraceptive devices, but it ruled that in the case before it there was "no occasion to determine whether an implied exception might be recognized when 'pregnancy would jeopardize life'."

Dr. Tileston in reopening the controversy said he hoped to have the court's ruling broadened. He charged that denial of the right to advise his patients would be unconstitutional under both state and federal constitutions because it would abrogate the principles of liberty, security of person, privileges and immunities of citizens of the United States and deprive a person of "life without the process of law."

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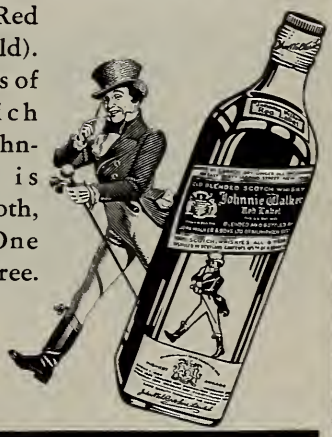

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The above County Medical Societies have certified 1942 dues for every member of their respective societies to be among the first 100 per cent paid up counties for 1942. Dues to the Michigan State Medical Society for 1942 are $12.00, payable through the county medical society secretary.

*Two positions* of "Child Guidance Clinic Director" are open with salary range from $5,520 to $6,720 per year. For full details re qualifications, duties, etc., write F. F. Tallman, M.D., Michigan Hospital Commission, City National Building, Lansing.

*R. Philip Sheets, M.D.,* Medical Superintendent of Traverse City State Hospital, announces that Wm. H. Gallagher, M.D., joined his staff in January.

* * *

*Robert J. Douglas,* M.D., of Muskegon has been appointed editor of the Muskegon County Medical Society Bulletin. N. A. Fleishman, M.D., of Muskegon is the new Business Manager.

* * *

*A. L. Benison, M.D.,* formerly of Edmore, Michigan, is with General MacArthur's forces in the Philippines, according to a report from Myron G. Becker, M.D., of Edmore

* * *

*What are the requirements* for a commission as First Lieutenant in the Army or as Lieutenant Jr. Grade in the Navy?

What is the pay rate and allowance of a Captain in the Army, or a Lieutenant in the Navy?

For answers see pages 181-182.

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* * *

*Washtenaw County* has enlarged its monthly Bulletin to members. The Bulletin is set up in an attractive new format and includes a digest of the program of the last monthly program, announcement of coming meetings and other important information.

* * *

*Burton R. Corbus, M.D.,* Grand Rapids, past president of the Michigan State Medical Society, has been appointed as the MSMS Representative to the Michigan Council on Adult Education. Doctor Corbus attended the meeting of the MCAE in the New Horace Rackham Foundation Building in Detroit on January 29.

* * *

*The Michigan Chapter of the American College of Chest Physicians* is planning to meet in Grand Rapids the day preceding the Michigan State Medical Society Convention, on Tuesday, September 22, 1942, according to Wm. Boyden Howes, M.D., Detroit, President of the Michigan chapter.

* * *

*The American Association of Industrial Physicians and Surgeons, and the American Industrial Hygiene Association* will hold their joint Annual Convention in Cincinnati April 13 to 17, 1942. A program is in preparation in which important medical and hygienic problems associated with the present huge task of American industry will be presented and discussed in clinics, lectures, symposia, and scientific exhibits.

* * *

*A Conference of Medical Service Plans* which are sponsored by medical societies was held in Chicago on February 14. At the Conference information was exchanged regarding the experience of the various plans. Arrangements were made to organize on a permanent basis for the purpose of coördinating the activities of the medical plans through the Bureau of Medical Economics of the American Medical Association, as recommended at the Cleveland meeting of the AMA House of Delegates. The results of this Conference will be published in a future issue of THE MSMS JOURNAL.

* * *

*A list of military members,* as certified by county medical society secretaries, will be published in the April, 1942, JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. This roster of medical members of the county and state medical societies in the armed forces of the United States will include their military addresses, wherever possible.


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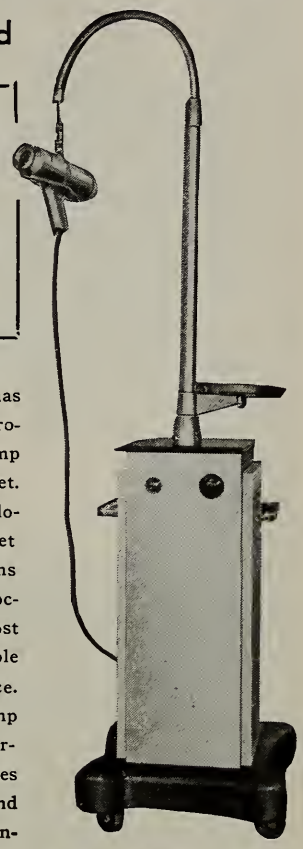

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## URGENT REQUEST

In view of the shortage of rubber and the difficulty in obtaining containers for biological products, all physicians are urgently requested to save containers and vials in which they receive biologicals, including the rubber stoppers and bulbs, and return them immediately to the State Health Laboratories, Lansing, Michigan. This action is extremely important as an emergency defense measure.

*"Treatment of Pneumonia,"* a pamphlet recommended to the physicians of Michigan by the Michigan State Medical Society, has just been printed by the Michigan Department of Health and is available to members of the State Society. The booklet of 30 pages gives complete coverage on Prevention, General Management, Chemotherapy, and Serotherapy. For a copy, contact your County Society Secretary.

* * *

*H. Allen Moyer, M.D.,* State Health Commissioner, and C. C. Young, Dr.P.H., in charge of the State Health Laboratories, advise that there is no truth in the rumors being circulated that the Michigan Department of Health is considering the discontinuance of the distribution of biological products for the control of communicable diseases. These products will continue to be manufactured and distributed by the Michigan Department of Health, as in the past.

* * *

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Eli Lilly and Company, Indianapolis
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The McKesson Appliance Company, Toledo, Ohio

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember *your friends* when you have need of equipment, medical supplies, appliances or service.

* * *

*Michigan authors* of articles in *The Journal of the American Medical Association* during the month of January were as follows: issue of January 17: H. C. Jackson, M.D., and Frederick A. Coller, M.D., Ann Arbor, on "Sulfanilamide in Peritoneum"; issue of January 24: Louis J. Hirschman, M.D., Detroit on "The Colostomy Question"; issue of January 31: C. C. Birkelo, M.D., Detroit on "Roentgen Diagnosis of the Primary Tuberculous Infection."

*The Second American Congress on Obstetrics and Gynecology* will be held in St. Louis, April 6 to 10, 1942. The headquarters hotel will be the Jefferson Hotel; all meetings, general sessions and exhibits will be held in the Municipal Auditorium. Fred L. Adair, M.D., Chicago is General Chairman of the Congress; Ralph E. Campbell, M.D., Madison, Wisconsin, Vice Chairman; Jean Paul Pratt, M.D., Detroit, Secretary; and Frederick H. Falls, M.D., Chicago, Treasurer.

* * *

*Harold A. Furlong, Lt. Colonel, M.C.,* State Medical Officer of the Selective Service System, Michigan Headquarters, reports that 1,967 Michigan physicians and dentists are engaged in the examination of selectees as follows:

| | |
|---|---|
| Local Board Examining Physicians (including dentists) | 1,517 |
| Medical Advisory Board members (including dentists) | 431 |
| Doctors of Appeal Boards | 19 |
| Total | 1,967 |

* * *

*Jay R. Venema, M.D.,* of Grand Rapids has been awarded the Edward and Susan Lowe Fellowship of Butterworth Hospital, Grand Rapids. The Fellowship carries with it a cash prize of $500 to be expended, within twelve months after receipt, in defraying the expense of securing postgraduate clinical or similar instruction and experience outside of Grand Rapids. The award is made on the basis of the degree to which the candidate has achieved increased proficiency in diagnosis and in medical or surgical treatment; the degree to which he has coöperated with other members of the medical staff and with the executive management and board of trustees; the degree of effort and willingness evinced by him to share with other members of the staff his knowledge of the science and practice of medicine and surgery.

* * *

*The American College of Surgeons'* thirty-second Clinical Congress will be held in Chicago, October 19 to 23, instead of Los Angeles as originally planned, due to the war. Headquarters will be at the Stevens Hotel. The twenty-fifth annual Hospital Standardization Conference sponsored by the College will be held simultaneously. The programs of both meetings will be based chiefly on wartime activities as they

**CORRECTION!**

The name of George W. Williamson, M.D., of Dundee was erroneously listed with those deceased in 1941 in the Secretary's Report to the Annual Meeting of The Council. Our apologies to Doctor Williamson!

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affect surgeons and hospital personnel in military and civilian practice.

* * *

*The Fifth American Psychiatric Association Postgraduate Institute* for state hospital men and other physicians interested in psychiatry, will be held at Missouri State Hospital, St. Joseph, Missouri, March 23 to April 4, 1942, according to an announcement just received from Franklin G. Ebaugh, M.D., Chairman of the Committee on Psychiatry in Medical Education of the American Psychiatric Association. For further information and complete program contact Doctor Ebaugh, Colorado Psychopathic Hospital, Denver, Colorado.

* * *

*The Staff of St. Mary's Hospital,* Detroit, held its annual banquet on January 21, 1942, attended by 92 members. Guests of honor were Dean Edgar Norris of Wayne University College of Medicine and C. E. Simpson, M.D., President of the Wayne County Medical Society. The principal speaker of the evening was Mr. Lee White of the *Detroit News* who spoke on "What Can One Believe."

Armand G. Kersten, M.D., was elected Chief of Staff; Euclid V. Joinville, M.D., Vice Chief, and Hugh Mahoney, M.D., Secretary-Treasurer. Walter Wilson, Sr., M.D., is the retiring Chief of Staff.

Grover C. Penberthy, M.D., and C. N. Weller, M.D., Detroit, presented a program on "Burns" illustrated by slides at the Clinical Pathological Conference held at St. Mary's Hospital, Detroit on February 5, 1942.

* * *

*Physicians are urgently needed* in civil positions at the Panama Canal, one of the nation's most vital defense areas. The U. S. Civil Service Commission has just announced an examination to secure physicians for these important positions, the entrance salary of which is $4,000 per year, plus free transportation by boat or plane from port of embarkation. Applications will be accepted by the Commission in Washington, D. C., until further notice. There is no written test.

Applicants must have been graduated from a Class A medical school with degree of M.D., subsequent to May 1, 1920, and have at least one year of experience in a hospital. Applicants must not have passed their fiftieth birthday. Full information is given in the announcements which may be obtained with application forms, at any first- or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C.

* * *

*John S. Lambie, M.D.,* in the *Bulletin of the Oakland County Medical Society,* presents very interesting statistics on the ages of physicians of Oakland County, as follows: 21 to 29 years, 8 physicians; 30 to 39 years, 43 physicians; 40



*Say you saw it in the Journal of the Michigan State Medical Society*

to 49 years, 52 physicians; 50 to 59 years, 11 physicians; 60 to 69 years, 11 physicians.

Schools of graduation of these physicians include 40 from the University of Michigan, 18 from Wayne University; 17 from Detroit College of Medicine and Surgery; 5 from the University of Toronto; 3 each from Creighton, Loyola and Marquette; 4 from Rush; 2 each from Iowa, Minnesota, Northwestern, Washington University, Georgetown, Michigan College of Medicine and Surgery, McGill, and the University of Western Ontario; and one each from Nebraska, Kansas, Ohio State, Western Reserve, Louisville, George Washington, Saginaw Valley, Howard, Vermont, Maryland, Tufts, Jefferson, University of Arkansas, University of Copenhagen, Meharry, and the College of Medical Evangelists of Los Angeles.

*The Bulletin of the Kent County Medical Society* presents similiar information, with a different break-down of the age groups of physicians in that county:

Kent County—255 members. Ages as of December 31, 1941: 36 and under: 63 members. Over 36 and under 45: 56 members. 44 and under: 119 members. 45 to 60: 80 members. 61 and over: 56 members.

* * *

*Pre-medical and medical students* may now obtain appointments as Ensigns in the U. S. Naval Reserve according to announcement just received from Rear Admiral Ross T. McIntyre, Surgeon General, U. S. Navy. Students who are acceptable will be given provisional commissions as Ensigns, and it is the policy of the Bureau of Medicine and Surgery not to nominate such officers for active duty until after they have completed their prescribed medical studies and shall have served one year's satisfactory internship in a civilian hospital accredited for intern training, or shall have been accepted as Acting Assistant Surgeon in the Navy for intern training. Upon Graduation, and notification by the Dean to the Bureau, commissions as Lieutenant (junior grade) will be issued, and after serving their internship in nonnaval hospitals, they will be nominated for active duty. Application forms may be obtained from the Dean's office or from the Bureau of Medicine and Surgery Navy Department, Washington, D. C., or from the Commandant of the Ninth Naval District, Great Lakes, Illinois.

* * *

### Michigan Pathological Society

The February meeting of the Michigan Pathological Society was held in Lansing on February 14, as a joint meeting with the Detroit Branch of the American Urological Society. There were 19 members of the Michigan Pathological Society and 35 urologists and guests in attendance.

The afternoon session consisted of pathological

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and pyelographic demonstrations at the Sparrow Hospital. The dinner and evening scientific meeting were held at the Olds Hotel.

The subject for the meeting was "Renal Pathology." Cases were presented by Drs. O. A. Brines, C. G. Weltman, D. C. Beaver, E. F. Ducey, G. Sewell, O. W. Lohr, R. Breakey, C. E. Black, Mark E. Maun, Martha Madsen and J. H. Ahronheim.

The next meeting will be held at St. Mary's Hospital, Grand Rapids, on April 11, 1942.

* * *

### American Board of Obstetrics and Gynecology

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted at Atlantic City, N. J., by the entire Board, from Wednesday, June 3, through Tuesday, June 9, 1942, prior to the opening of the annual meeting of the American Medical Association.

Application for admission to Group A, Part II, examinations must be on file in the Secretary's Office not later than March 1, 1942. It will greatly facilitate the work of the Board if applications are filed as far as possible in advance of the closing date for their receipt.

Formal notice of the time and place of these examinations will be sent each candidate several weeks in advance of the examination dates.

Candidates for *reëxamination* in Part II must make written application to the Secretary's Office before April 15, 1942.

As previously announced in the Board booklet, this fiscal year (1941-1942) of the Board marks the close of the two groups of classification of applicants for examination. Thereafter, the Board will have only one classification of candidates, and all will be required to take the Part I examinations.

The Board requests that all prospective candidates who plan to submit applications in the near future request and use the new application form which has this year been inaugurated by the Board. The Secretary will be glad to furnish these forms upon request, together with information regarding Board requirements. Address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

* * *

### Rationed Tires and Physicians

Beginning January 5, 1942, automobile tires and tubes were rationed "only to persons performing a function essential to the war effort or to the health and welfare of the nation as defined in the rationing order issued by the Office of



*Say you saw it in the Journal of the Michigan State Medical Society*

Production Management, and signed by the President." Among those vehicles designated for which tires may be obtained are "those which are operated by physicians, surgeons, visiting nurses, or veterinaries, and which are used principally for professional services." Tires may also be rationed to ambulances, certain busses and trucks.

The Office of Price Administration, which has charge of the tire rationing program for the nation, interprets the eligibility of physicans' automobiles as follows: "The board shall issue certificates for vehicles in this class only to doctors, nurses and veterinaries, whose professional practice is to make regular calls outside their offices and who use automobiles to make their professional calls. No certificate shall be issued unless the doctor, nurse or veterinary applying shows that the particular car on which the tire or tube is to be mounted is actually used for professional calls and is used principally for that purpose."

Application forms for new tires are available at each approved tire dealer or garage, post office, police station and the office of the local Tire Rationing Board (county or city clerk). Before submitting formal application, however, the tires must be inspected by one of the approved dealers or garages authorized to inspect and report on the condition of the applicant's tires. If the authorized inspector finds that the tire or tires which the applicant desires to replace are unsafe, cannot be repaired, reconditioned, or retreaded, the inspector will so certify on the application form.

The application should then be taken to the local Tire Rationing Board for consideration. If the Board finds the applicant falls within the eligible classification, it may issue a certificate for the purchase of the desired tire within the quota of tires assigned to the Board. The tire must be mounted on the physician's car. Each Board will have a monthly quota assigned of which one quarter is available each week. Excess allotments will carry over from week to week, but not from month to month. As soon as the stated allotment has been used, no more tires will be available until the next week.—*Extract From Instructions For Rationing, OPA*

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### HALF AN ARMY DIVISION LOST

It is interesting to speculate on the number of potential soldiers, sailors and fliers that were killed by automobile accidents in 1941, as our nation was girding itself for war. Of the 30,720 persons killed in the age group fifteen to sixty-four, more than half were males and of these, at least half would be of military age. That means half an army division exterminated, without the expenditure of one enemy bullet!—*The Wreckord.*

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ARTHRITIS IN MODERN PRACTICE. By Otto Steinbrocker, B.S., M.D., Assistant Attending Physician and Chief, Arthritis Clinic, Bellevue Hospital, Fourth Medical Division, New York City. With Chapters on Painful Feet, Posture and Exercises, Splints and Supports, Manipulative Treatment and Operations and Surgical Procedures by John G. Kuhns, A.B., M.D., F.A.C.S., Chief of the Orthopedic and Surgical Service, Robert Breck Brigham Hospital; Assistant Visiting Orthopedic Surgeon, Boston Children's Hospital. 321 illustrations. Philadelphia and London: W. B. Saunders Company, 1941. Price: $8.00.

The author embodies in readable and practical form the readily available source of commonly accepted diagnostic and therapeutic measures. It is an exceptionally practical book, extensively illustrated and very interesting. The bibliography is profuse and the typography is excellent. It is recommended to the general practitioner.

* * *

HEART DISEASES. A Handbook for Students and Practitioners. By Marion Ellsworth Anderson, A.B., M.D., Clinton, Iowa. Clinton, Iowa: Allen Printing Company, 1941. Price: $1.00.

This pocket manual is based on a study of many textbooks and monographs as well as every writing on heart disease that has appeared in the *A.M.A. Journal.* To this the author has added his own experience in his practice. It is written from a clinical aspect and contains many of the author's personal conceptions. The typography is fair. It is not well illustrated but its personal viewpoint is refreshing.

* * *

CLARA BARTON. Daughter of Destiny. By Blanche Colton Williams. 31 illustrations. Philadelphia: J. B. Lippincott Company, 1941. Price: $3.50.

For the medical lover of biographies, and who is not, "Clara Barton, Daughter of Destiny" has a particular appeal. The author has found many previously unknown diaries and journals which more completely tell the thrilling, romantic history of Clara Barton and the American Red Cross. It is excitingly written, holds the added ingredient of authenticity. It is really worth reading.

* * *

SYNOPSIS OF ALLERGY. By Harry L. Alexander, A.B., M.D., Professor of Clinical Medicine, Washington University School of Medicine, St. Louis; Editor of The Journal of Allergy. Illustrated. St. Louis: The C. V. Mosby Company, 1941. Price: $3.00.

Here is one of the volumes in the series of pocket-sized synopses which are published by Mosby. It presents the subject of Allergy in terms of present day thought. The general considerations are simply but completely presented with the greatest emphasis being placed upon bronchial asthma and hay fever. The appendix is a very interesting and practical chapter which provides considerable usable information



*Say you saw it in the Journal of the Michigan State Medical Society*

for any interested physician. The typography is excellent.

* * *

THE TOXEMIAS OF PREGNANCY. By William J. Dieckmann, M.D., Associate Professor of Obstetrics and Gynecology, The University of Chicago; Attending Obstetrician, The Chicago Lying-in Hospital and Dispensary; Attending Gynecologist, Albert Merrit Billings Memorial Hospital of the University of Chicago; Associate Editor of the American Journal of Obstetrics and Gynecology; Co-chairman of the Conference on Eclampsia, United States Department of Labor, Children's Bureau, 1941. With fifty text illustrations and three color plates. St. Louis: The C. V. Mosby Company, 1941. Price: $7.50.

This is a monograph to acquaint the obstetrician with some of the recent contributions on physiology pertaining to obstetrics and to acquaint the investigator, untrained in obstetrics, with some of the physiology and pathology of obstetrics. The material is presented in detail but is well organized and there is much of practical value here. There are many tables, few illustrations, and the typography is excellent. It is recommended to those especially interested in obstetrics.

* * *

ALLERGY IN CLINICAL PRACTICE. By Staff-Members of the Cleveland Clinic. Under the Direction of Russell L. Laden, M.D., F.A.C.P., Chief of the Medical Division. Edited by J. Warrick Thomas, M.D., F.A.C.P., Chief of the Section on Allergy. 92 illustrations including 14 subjects in color. Philadelphia: J. B. Lippincott Company, 1941. Price: $5.00.

The staff at Cleveland Clinic felt that the discussion of allergy by a specialist in that field might be too inclusive. They felt that the popular evaluation of allergy as a factor in the production of disease is best made in a large clinic. Except for the inclusion of many case records the volume is exceptionally well written and arranged, excellently illustrated and the typography is excellent. It is recommended to the general practitioner.

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An advance copy of "Clara Barton: Daughter of Destiny" (Lippincott) sold for thirty dollars, the largest sum paid for a contemporary book, at the recent Book Fair at Hunter College in New York. The Fair was held in the interests of the Blanche Colton Williams Fellowship, established by the Department of English in honor of its former head, the author of "Clara Barton." The Fair was held at the Art Library of the College, under the direction of a committee of faculty and students. Speakers included J. Donald Adams of the *New York Times,* A. M. Sullivan, President of the Poetry Society of America, Amy Loveman of the *Saturday Review of Literature,* Babette Deutsch and Arthur Guiterman.

# IN MEMORIAM

**Emerson Cooper** of Rockwood was born in Melbourne, Ontario April 21, 1876, and was graduated from the Toronto Medical College in 1900. He started practicing in Carleton and continued for 19 years. Later he returned to Rockwood and took up his practice, continuing until 1939. Dr. Cooper died, after a long illness, January 21, 1942.

* * *

**Arnold T. Droste** of Dearborn was born in 1893 in Westphalia, Michigan, and was graduated from Wayne University College of Medicine in 1924. He had practiced in the vicinity of Detroit for 18 years. Dr. Droste died after a brief illness, January 2, 1942.

* * *

**Fred W. Freeman** of Saginaw was born in 1857 in Windsor, New York, and was graduated from the University of Michigan Medical School in 1882. With his family he came to Saginaw in 1877, where his father, the late James W. Freeman, M.D., established his practice. Doctor Freeman was elected to Emeritus Membership in the Michigan State Medical Society on September 19, 1938. He died after an illness of two years which followed an automobile accident, January 21, 1942.

* * *

**Frank J. A. MacDonell** of Detroit was born August 21, 1874 in Chatham, Ontario and was graduated from Wayne University Medical School in 1897. At the completion of his internship at St. Mary's Hospital he took up post-graduate work in New York City, until 1900, at which time he began private practice in Detroit. He was a member of the Staff of The House of Providence when that institution was located at St. Antoine and Elizabeth Streets. In 1911, when that institution in its new location at West Grand Boulevard and Fourteenth Avenue, became Providence Hospital, Dr. MacDonell continued as a staff member in the Department of Obstetrics. Dr. MacDonell died January 15, 1942.

* * *

**Colin G. Robertson** of Sandusky was born May 15, 1875 in Hawkesbury, Ontario, and was graduated from McGill University, Montreal in 1901 and from the College of Physicians and Surgeons of Toronto in 1902. He practiced in Van Kleek, Ontario before coming to Sandusky where he practiced thirty-seven years. Dr. Robertson died December 19, 1941.

* * *

**Lilla B. Wood** of Reed City was born in Ann Arbor, Michigan, in 1867, and was grad-

uated from the Saginaw Valley Medical School in 1901. Following graduation, she practised at Bay View. In 1902 and 1903, she located in Hawkins and Paris. Later, she practiced in Detroit and remained there twenty years. In the past two years she has lived in Reed City, where she died November 26, 1941, following a short illness.

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### MODERN MEDICINE'S PROGRAM TO PAY FOR THE WAR

Modern medicine says that the nation need not worry about post-war debts, according to Martin Stevers, writing in the January issue of *Tomorrow*. "The assumption that the productivity of our people will remain about as it is," writes Mr. Stevers, "is completely unwarranted. If medical science is given its head in public health, there will be a burst of prosperity as great as the world got from steam factories, steam railroads, and steamships after the Napoleonic wars. The race can be given one of the biggest lifts it has had in all history with laboratory products—hormones, vitamins and allied products."

Professor Russell M. Wilder, chief of the Mayo Foundation's Department of Medicine and chairman of the National Research Council's committee on nutrition, is one of the competent authorities who share Mr. Stever's conviction. "Professor Wilder starts from the proposition," writes Mr. Stevers in the article, "Modern Medicine's Program to Pay for the War," "that at least two-thirds of our people, rich as well as poor, suffer from malnutrition as a result of eating devitalized food. His remedy, however, is as simple as the damage has been serious. He sees no need for tackling the almost hopeless task of trying to change food tastes and habits. Neither need the nation undertake the economically staggering task of trying to provide a vastly enriched diet for everybody." Professor Wilder says, "Were all edible fats to be fortified with vitamins A and D to reasonable limits, and if little more than an ounce of the solids of milk or whey could be incorporated in everybody's diet through milk sugar . . . malnutrition should vanish as a public problem, and with it undoubtedly would go much other disease."

Mr. Stevers, who is Science Editor of Compton's Encyclopedia, adds that this statement is more than conservative, in view of the possibilities. "The cost of preventable disease and death in the United States has been estimated at three and one-half billion dollars a year—enough to care for a national debt of one hundred billion dollars. Certainly nothing could help more to save a large fraction of this sum than a general upbuilding of health through sound nutrition.

"Altogether, then, medicine cannot be accused of pipedreaming when it foresees a new era of healthfulness ahead. Its program is logically complete, and moreover, it meets the most important test of all, practicability in the troubled times to come."

This new health program does not call, Mr. Stevens points out, as did older health programs, for expenditure of billions to enlarge the national diet, create vastly expanded hospital and sanitarium facilities, and maintain a tremendous medical personnel to provide prolonged treatment and supervisory care. It can be carried through, quite largely with laboratory products—hormones, vitamins, and drugs—which can be produced and used on a mass basis, once demand develops.

"Because of this simplicity, the program should pay for itself as it goes, through reduced disease, while producing a far better younger generation as a free dividend to carry the burdens of the future. And is there any other proposal whatever for dealing with the aftermath of war, of which this can be said?"

## READING NOTICES

### VITAMIN B COMPLEX LITERATURE SURVEYED IN NEW ABSTRACT BOOK

Published as a convenience to physicians and others interested in the subject, the new Lederle Vitamin B Complex Abstract Book provides in compact form a topical survey of accomplishments in the development of Vitamin B components, and their application in a wide range of conditions.

Because the literature on the subject is already too extensive to be covered in full, this sixty-two page booklet presents in abstract form only the most salient of recent articles from leading medical journals and other sources. For convenience the studies pertaining to various diseases and Vitamin B Complex deficiencies are arranged alphabetically. The articles have been sufficiently condensed so that each seldom occupies more than a single page. Suggested references are included with each as a guide to more extensive reading and study.

This booklet, "Abstracts Selected from Published Articles on Vitamin B Complex and its Components" is being distributed to physicians and is available on request to Lederle Laboratories, 30 Rockefeller Plaza, New York, New York.

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### MODERN METHODS OF IMMUNIZATION

Physicians who are concerned with the immunization of infants and children have as their goal the use of materials which will not sensitize the patient and the utilization of routes of administration that cause least discomfort. Definite assistance toward these objectives is provided by use of combined antigens in the opinion of a recent observer. (*J. Florida M.A.*, 28:330. 1942). The author has employed Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated (Lilly) for the last three years without any untoward reactions.

The combination of diphtheria and tetanus toxoids is effected by mixing suitable amounts of the respective toxins which have been detoxified by the use of formaldehyde, and precipitating from this combination with alum the diphtheria and tetanus toxoids. The individual toxoids are tested for toxicity prior to mixing, and the combined alum precipitated toxoid is tested for toxicity after precipitation. Potency is determined by injecting guinea pigs with a human dose. After four weeks the blood serums of these animals must show at least 2 units of

diphtheria antitoxin and 2 units of tetanus antitoxin per cubic centimeter of blood serum.

Should exposure to either diphtheria or tetanus occur before immunization against each disease is completed, the usual procedures for immediate protection of unimmunized subjects should be considered. The combined toxoid is not for treatment, it is a prophylactic measure of active immunization against diphtheria and tetanus.

## ANY PHYSICIAN MAY EXHIBIT "WHEN BOBBY GOES TO SCHOOL" TO THE PUBLIC

Under the rules laid down by the American Academy of Pediatrics, their new educational-to-the-public film "When Bobby Goes to School" may be exhibited to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film.

"When Bobby Goes to School" is a 16-mm. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed by physicians without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

## SQUIBB INTRODUCES PRODUCT FOR SIMULTANEOUS IMMUNIZATION AGAINST DIPHTHERIA AND WHOOPING COUGH

The first preparation for simultaneous immunization against diphtheria and whooping cough to be made available commercially in this country is now offered by E. R. Squibb & Sons, New York, in Diphtheria Toxoid Alum Precipitated—Whooping Cough Vaccine Combined Squibb. Each 1 c.c. of the combination product contains a full immunizing dose of Diphtheria Toxoid Alum Precipitated and 10,000 million killed Bacillus (hemophilus) pertussis.

This new product possesses the advantage of convenience and economy, and in addition, with a combined product of this type, the antibody responses of the two antigens tend to complement each other. The reactions to the combined antigens are apparently no more frequent or severe than those following the use of diphtheria toxoid alum precipitated.

To be on the safe side, it is suggested for the present that three or four injections of 1 c.c. each of Diphtheria Toxoid Alum Precipitated—Whooping Cough Vaccine Combined Squibb—be given at monthly intervals. This will confer a high degree of immunity to diphtheria and should afford adequate protection against whooping cough. Immunization is recommended for all children over six months of age.

## NO INCREASE IN RATES—NO RESTRICTIONS FOR THOSE IN ARMED SERVICES

In these days when we are all confronted with a question of shortages in various commodities and an increase in the price of those obtainable, we are happy to announce that not only will we continue to carry our policyholders at no increase in the cost of their accident and health insurance but we adopted a resolution to the effect that there shall be no restriction under our policies by reason of Army, Navy or Marine Service and this is irrespective of where such Service may take the policyholder.—Physicians Casualty Association of Omaha.

### THE NAKED TRUTH

What has group medicine to offer the incurable chronics of various types and the maimed, deformed, and paralyzed derelicts floating pathetically on a storm-tossed sea of hopeless trouble? Are they to be given the once over? What about Grandma Jones and Uncle Ed who are sitting by the fireside or confined to bed in a dismal back room, waiting timidly but expectantly for the arrival of the golden chariot to bear them aloft? Who is going to prescribe and supervise the pain-relieving measures necessary to their comfort, while an inoperable cancer slowly saps their life? Will the whole technical squad of experts hurry out en masse every time an anxious attendant rings in a three-three alarm? I wonder!

Group medicine enthusiasts must not forget, either, that a lay person is prone to regard his doctor as a machine—a sort of human taxicab—of which he may demand quick service at any hour to carry him or one of his family through some illness, either fancied or real, so long as he pays the shot. What such an individual desires is excellent service and not phoney excuses. He imperatively wants old doc to hurry to his relief as though someone had caught fire from a sunburn, and Upandatem, M.D., was a chemical hose company turning out on a still alarm to subdue the conflagration. If group medicine ever arrives, the Lord have mercy on the impatient soul. What he will get will be reversed—excuses and not much service—and I don't mean maybe.—From "Group Medicine Answered," Floyd Burrows, M.D., *New York State Medical Journal,* reprinted in *Connecticut State Medical Journal,* December, 1941.

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# MICHIGAN MEDICAL SERVICE

### Conference on Medical Service Plans

The first Conference on Medical Service Plans was held in Chicago on February 14, 1942, at the headquarters of the American Medical Association and the Palmer House. A total of sixty-four persons were present, including representatives from operating and proposed medical service plans in seventeen states and officers of state and county medical societies.

Dr. Olin West, Secretary and General Manager of the American Medical Association, welcomed the representatives and stated: "You are distinctly a part of a great movement that is essential to the welfare of the people of this country and it is highly desirable that you should get together to exchange information and opinions in order to arrive at a basic understanding of the problems involved."

Mr. J. D. Laux of Michigan Medical Service, who was elected Chairman of the Conference, indicated that interest in some form of prepayment for medical services has been moving along three well-defined fronts: (1) group clinic or consumer plans such as the Ross-Loos Clinic or the Transport Workers Medical Plan, of which there are seventeen such plans in operation with a total enrollment of 100,000 persons; (2) employe-employer mutual benefit association (300 in operation) and the commercial insurance company plans (at least 250) providing cash indemnity benefits totaling $365,000,000 annually; and (3) non-profit medical service plans sponsored by medical societies, of which there are thirty-three plans in operation in nine states with an enrollment in excess of 750,000 persons. The non-profit medical society sponsored programs are developing most rapidly and give the best promise of contributing toward a better distribution of medical service.

The entire day was devoted to consideration of the basic principles and major problems involved in medical service and limited surgical benefit programs sponsored by medical societies. The following are some particularly pertinent points brought out in the discussion:

- Contract practice plans limiting service to a small number of physicians cannot provide a satisfactory service for an entire community. Non-profit community-wide or state-wide service plans are the proper type of organization for prepayment of medical services.

The statement that voluntary plans lead to compulsory insurance applies to the chaotic situation created by a multiplicity of lay controlled or commercial plans not to medically sponsored community programs.

- In medical society sponsored programs, the contribution of the profession is the offering of services without additional charge to persons in the under-income group. Under a plan providing cash indemnity, the only thing the medical profession furnishes—service protection to the individual—would be taken away.
- Experiments in the full coverage type of medical service plan are being undertaken to determine the effect of such plans on the private practice of medicine; how such plans affect the physician-patient relationship; what problems arise in connection with the practice of specialists; the difference between urban, rural, and metropolitan practice; and all general problems relating to medical care.
- A differential arrangement for specialists is a problem which one medical service plan treats in the following manner: When a subscriber uses a specialist as his family physician, the specialist receives general practitioner fees for such service. However, in the event the subscriber is referred to a specialist by his family physician for special services, an increased fee is paid. To be eligible for increased fees, the specialist must confine himself strictly to his specialty.
- Enrollment based on individual physical examinations does not furnish as good selection as group enrollment.
- The desirability of establishing somewhat uniform or model legislation for medical service plans was emphasized.
- The question of the extent of joint operations with hospital service plans and the appropriate basis for coöperation led to the establishment of a committee to meet with a committee from the hospital service plans.
- It is of utmost importance to establish a centralized agency for the collection and dissemination of information. R. G. Leland, M.D., Director of the Bureau of Medical Economics of the American Medical Association, outlined a program of coördination through establishment of a glossary of terminology, an organizational outline of the plans, and a composite tabulation of financial and statistical reports.

The Conference concluded with the appointment of a committee to determine the best method of establishment of a permanent organization of medical service plans throughout the country.

# ✶ HALF A CENTURY AGO ✶

## NOTES ON THE APPENDIX VERMIFORMIS: ANATOMICAL AND CLINICAL*

GEORGE DOCK, M.D.
Ann Arbor, Michigan

No explanation is necessary for the selection of the subject I bring before you. The importance of the subject may be seen by a perusal of current medical literature, in the number of articles and reports of society proceedings bearing on it.

Some apology may be due you for the form in which the matter is presented. I advance no theories and bring out no conclusions. But this is rendered necessary by the nature of the subject. The typical cases of appendix disease are well known to all, promptly diagnosed, and treated for the most part rationally. But we are becoming familiar with the fact that in a considerable proportion of cases of appendix disease the symptoms are vague and that owing to this lives are lost even to the most progressive. With the increase in knowledge, these cases are becoming rarer, but are common enough for all who have opportunities for making autopsies to see examples all too frequently.

For some years I have endeavored to gain some light by a study of the anatomical relations of the appendix. Although the number of examinations reported is small, it must be remembered that some of the most useful studies of the appendix have been made on small groups of cases. One reason for reporting the observations at this time is that opportunities for carrying on the observations are wanting.

In the course of the observations, I met with a number of cases presenting interesting clinical points. These I shall mention briefly.

I pass over a number of cases of disease of the appendix or its vicinity treated as such, either internally or by surgical means, and in which, by their course, or the result of operation, one or other of the common forms of appendix disease was made out.

Most of the observations were made in Galveston, Texas, in hospital and private practice. The number of bodies examined was eighty.

A large majority were beyond the age at which appendix disease usually develops.

Seven were below the age of twenty-one, i.e.: two of three years, one each of five, fourteen, sixteen, eighteen, twenty; between twenty-one and twenty-five, five; twenty-six to thirty, nine; thirty-one to thirty-five, seven; thirty-six to forty, nine; forty-one to forty-five, ten; forty-six to fifty, ten; fifty-one to fifty-six, five; fifty-six to sixty, nine; sixty-one to sixty-five, three; sixty-six to seventy, one; seventy-one to seventy-five, four; very old, age unknown, one. Sixty-five were white, fourteen negro, one Mexican. There were seventy males and ten females.

The peculiar conditions as to age and sex are common in hospitals in the south.

The position of the appendix was carefully noted before any of the organs were moved. In forty-seven cases it was in that called normal—lying among the folds of the small intestines, or behind the mesentery, and pointing towards the position of the spleen.

In eight cases it lay in the right iliac fossa. In eight cases it lay near this position, noted as in the vicinity of the right sacro-iliac articulation, or the lumbo-sacral articulation. In four cases it lay to the left of the ascending colon and running up towards the liver; in four to the right of and close to the ascending colon.

In six cases it was quite in the true pelvis. In one of these, in a case of chronic dysentery, the cæcum was adherent to the pelvis.

In one case, the appendix ran horizontally back from a cæcum rather turned towards the exterior abdominal wall.

In one, the appendix, four inches long, ran to the left straight across from the cæcum, ending among the coils of small intestines.

In one, it ran along the iliac vessels to the right pubic spine.

The length of the organ was not noted in every

*Presented at the Twenty-Seventh Annual Meeting of the Michigan State Medical Society, Flint, May, 1892.

case, but always when longer or shorter than a medium of 3 to 4 inches. In two cases it measured only 1 inch, one in a white male of thirty, the other in a white male of fifty-one. The largest measured seven inches, in a white male of thirty-five. The average length in negroes is probably slightly greater than in whites—4 inches in my cases, but great variations were not so common.

The diameter showed no great variation from an average of 5 mm. In a case of tuberculous ulceration of the intestines, with tuberculous ulcers in the appendix, that organ had a diameter of 15 mm.

### Pathological Conditions

No attempt was made to look for microscopical changes in the absence of manifest lesions, although an experience recorded in a case operated on by Dr. Hadra (Medical Record, Vol. I, 1890, p. 269), makes it probable that such changes could often be found.

In five cases there was evidence of disease in the form of adhesions of the peritoneum of the appendix to adjacent structures, with greater lesions.

*Case 1.* (Case 21) Man of twenty-five years, died of typhoid fever. Appendix in the right iliac fossa adherent to the cæcum for three inches, one inch free. It contained no Peyer's patches; the lymph nodules were swollen, but no evidence of disease in the cæcum. The adhesions were firm and smooth, apparently old.

*Case 2* should not, probably, be included. The subject (Case 28) was a man dead of phthisis, with lesions of the ileum and small (tuberculous) ulcers in the mucous membrane of the appendix. The appendix, the size of the little finger, was closely adherent to the left side of the colon. There was beginning inflammation over some of the ulcers in the appendix, but the adhesions were evidently of long duration.

*Case 3.*—Croupous pneumonia in a man of sixty years, (Case 46). Appendix 6 inches long, adherent in its whole length to the peritoneum to the left of the ascending colon. There was no other evidence of appendix, or cæcal disease.

*Case 4.*—In the body of a negro of about fifty, dead of chronic nephritis (contracted kidney, hypertrophy of the left ventricle and theroma), the appendix, 5 inches long, was closely adherent to the peritoneum, along the right side of the ascending colon. The adhesions were so firm, close, and smooth that the organ could only be found with some difficulty, after raising the cæcum and loosening some of the adhesions. The obscurity was increased by the opacity of the peritoneum (ascites).

*Case 5.*—Man of sixty-three, dead of pyæmia, following extensive crushing, the appendix, 5 inches long, lay close to the right side of the ascending colon, attached by thin but firm adhesions. No other peritoneal lesion.

In a case of typhoid fever, fatal in the third week, there was extensive redness and swelling of the serosa of the appendix, along with swelling of mucous membrane and solitary nodules.

### Foreign Bodies

In no case was a true foreign body found: that is, one of external origin.

In one case (Case 57), a man of twenty-three, dead of pernicious malarial fever, without history of other disease, a fæcal concretion was found. The appendix, 4 inches long and as thick as a lead pencil, ran across toward the promontory, lying among loops of small intestines. About an inch from the tip, in a small dilatation, lay a hard smooth mass, the size and shape of a prune stone, for which it was taken until cut out. It was made up of a dry fecal matter, with a thin, moist, pale yellow coating, and a hard center, resembling a grain of sand.

In one case a mucous plug was found. This was in the body of a negro woman of about twenty years, (Case 69.) The patient died suddenly soon after admission to the hospital. There was general anasarca. The only history obtainable was that the patient had been in the same condition for some months. The cause of death was contracted kidney of severe degree.

The appendix was three inches long, lying curled below the cæcum. The intestines showed no lesion. The appendix was filled by a mass of greenish yellow, tough, gum-like material, resembling to the naked eye and microscopically some kinds of casts passed in membranous enteritis. It was so closely impacted that a probe could not be passed through between the mass and the mucous membrane. In the beginning of the appendix, the mucous membrane showed no naked eye change. Towards the tip it was dense and white.

Sections showed: Thickening of the peritoneum of the appendix and its mesentery with fibroid thickening of the mesenteric arteries (adventitia). The muscularis was but little altered, the submucous coat fibroid, and closely united with the fibroid muscularis muscosæ. The tubules of the mucous membrane were not more than half the usual depth, and separated by wide spaces filled with small-celled or fibrous granulation tissue. The epithelial cells appeared mostly as goblet cells. The mass filling the lumen of the appendix was continuous with the colloid contents of the tubules. The process was more marked at the distal end.

Here the plug of altered mucous was precisely like the harder "casts" passed in cases of membranous enteritis. It might be supposed that the plug was the cause of the disease in the appendix. It is more likely, however, that the latter represented the later stages of a severe appendicitis, and that the mucous remaining in the lumen, on account of the rigidity of the walls, became altered in its consistency and appearance. The appendix was probably no longer dangerous, but we can hardly doubt that its possessor had passed through a dangerous condition at some former period. *(To be continued)*

## CONCLUDE REPORT WITH—

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# MICHIGAN PHYSICIANS IN MILITARY SERVICE

The following list of physicians has been compiled from reports received from secretaries of county medical societies in which they gave the names of physicians from their respective counties who were serving with the armed forces of the United States. Reports have not been received from all the counties; some physicians have undoubtedly been called since the report was made by the county society secretary; and many addresses are incomplete. The list, however, is as complete as we can make it at this time and the Executive Office of the State Society solicits the help of anyone who knows of a doctor of medicine who is serving his country in the Army, Navy or Marines whose name is not included or whose address is incorrect.

*Allegan—*
Lt. H. T. Stuch, M.D., Camp Polk, La.

*Alpena-Alcona-Presque Isle—*
Capt. J. A. Ramsey, Carlisle Barracks, Pa.

*Bay-Arenac-Iosco—*
Major G. L. Hagelshaw, Camp Wolters, Texas.
Lt. Col. C. S. Tarter, 107th Medical Regiment, Camp Livingston, La.
Capt. C. W. Reutter, 2nd Squadron-52nd Pursuit Group, Norfolk, Va.
Capt. Horace F. Burton, Chanute Field, Rantoul, Ill.
Lt. H. A. Timreck, Fort Sam Houston, Texas.

*Berrien—*
Walter M. Bartlett, Lawson General Hospital, Camp Gordon, Ga.
William C. Ellet, U. S. Naval Reserve M.C., San Francisco, Calif.
Richard Crowell, U. S. Naval Reserve M.C., Dearborn, Michigan.

*Branch—*
H. A. Scovill, Fort Custer, Michigan.
E. M. Chipman, address unknown.
Kenneth L. Olmsted, Camp Robinson, Ark.

*Calhoun—*
Lt. Commander M. J. Capron, Parris Island, S. C.
Lt. (Sr. Grade) Arthur Humphrey, Parris Island, S. C.
Lt. (Sr. Grade) Kenneth Lowe, Parris Island, S. C.
Lt. (J.G.) George W. Slagle, Parris Island, S. C.
Lt. (J.G.) Karl Zinn, Camp Grant, Ill.
Major W. R. Chynoweth, Fort Sam Houston, Texas.
Major Hugh Mullenmeister, APO No. 810, New York City.
Capt. Harvey Hansen, Fort Benning, Ga.
Lt. Joseph Levy, Fort Mead, Maryland.
Lt. James Forsythe, Kelly Field, Texas.
Lt. C. E. Hale, Fort Sam Houston, Texas.
Lt. Clark W. Royer, Camp Wolters, Texas.
Capt. T. C. Smith, Canadian Army, Ontario.
Lt. Harold Tannenholz, Camp Grant, Ill.
Lt. A. W. Hoyt, Fort Leonard Wood, Mo.
Lt. Francis L. Lam, Camp Forrest, Tenn.
Lt. Sam Alpiner, Fort Custer, Michigan.
Lt. Gordon A. Prachar, address not given
Lt. Everal Wakeman, address not given.
Lt. Harold Peggs, address not given.
Lt. Meyer Penzlar, address not given.
Lt. Charles Stewart, Jr., address not given.
*Lt. W. H. Schick—killed in action at Pearl Harbor.*

*Dickinson-Iron—*
Lt. Kenneth E. Gloss, San Angelo, Texas.
Lt. Harry H. Haight, M.C., U. S. Marine Corps, Pearl Harbor, T.H.

*Eaton—*
Lt. Arthur S. Gray, Kalamazoo Induction Center, Kalamazoo, Michigan.

*Genesee—*
Lt. Commander Robert F. Hague, U. S. Ships Service, Dearborn, Michigan.
Capt. Maynard M. Farhat, Camp Davis, N. C.
Lt. Henry K. Baker, Camp Grant, Illinois.

*Grand Traverse-Leelanau-Benzie—*
Joseph Knapp, M.D., Camp Croft, S. C.
Earl E. Hamilton, M.D., address unknown.
Richard Greer, M.D., Northport (home address).

*Hillsdale—*
Clair E. Johnson, Camp Grant, Ill.
Robert Kinzel, address unknown.

*Houghton-Baraga-Keweenaw—*
Lt. James Acocks, Langley Field, Va.
Maurice Kadin, Camp Grant, Ill.
Lt. Colonel T. P. Vander Zalm, Fort Leonard Wood, Missouri.

*Ingham—*
Capt. Thomas E. Gibson, Selfridge Field, Mich.
Capt. John Wellman, Lawson General Hospital, Ga.
K. W. Toothaker, Great Lakes Naval Training Station, Ill.

*Ionia-Montcalm—*
I. V. LaVictoire, U. S. Naval Hospital, Canacao, Philippine Islands.

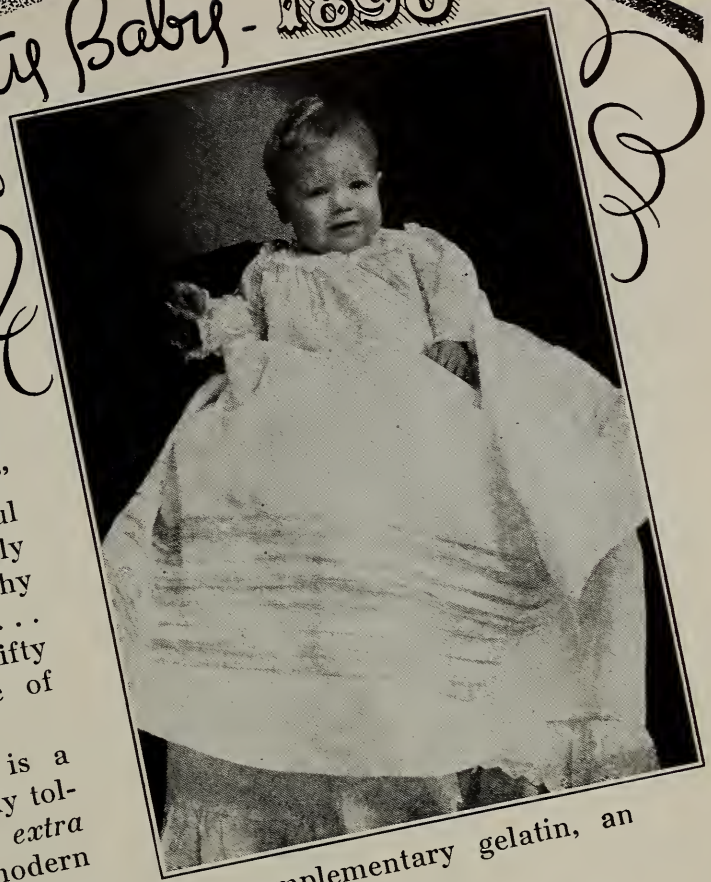
*Jackson—*
Francis W. Bartholic, Camp Forrest, Tenn.

*Kalamazoo—*
Capt. Keith Bennett, Fort Custer, Mich.
Capt. W. B. Crane, Fort Custer, Mich.
Lt. E. R. Nell, Fort Wm. McKinley, Philippine Islands.
Lt. C. E. Osborne, Fort Statsenburg, Philippine Islands.
Capt. E. H. Wagenaar, Fort Benjamin Harrison, Ind.
Lt. Chas. H. McIntyre, U. S. Navy M.C., Detroit.

*Kent—*
Frank Adams, c/o Postmaster, New York City.
John Boet, Camp Livingston, La.
Charles Farber, Kalamazoo Induction Station, Mich.
Charles Frantz, Camp Livingston, La.
Robert Freyling, U.S.S. Nevada, San Pedro, Calif.
Lawrence Hilt, Naval Hospital, Great Lakes, Ill.
Robert Kelly, Panama Canal Zone.
John Lavan, U. S. Navy, address unknown.
M. M. Marrin, Fort Bliss, Texas.
Stanley Moleski, U. S. Navy, Great Lakes, Ill.
John M. M. Whalen, Pearl Harbor, T.H.
John F. Wurz, Camp Livingston, La.

*(Continued on Page 274)*

# Portrait of a Healthy Baby - 1890



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- An *adjusted* protein (added gelatin)
- An *adjusted* fat
- *Two* added sugars
- Added *vitamin B complex*
- *4 times* as much iron as cows' milk
- Not less than *400 units* of vitamin D per quart

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*(Continued from Page 272)*

*Lapeer—*
David Wall, Fort Leavenworth, Kansas.
James H. McRae, Calif.
Walter Miller, Wash.

*Luce—*
Matthew A. Surrell, Camp Blanding, Fla.
George F. Swanson, A.E.F., address unknown.

*Lenawee—*
Lt. C. A. Campbell, U. S. Navy M.C., Detroit.
Capt. R. G. B. Marsh, Camp Livingston, La.
Lt. Perry Lynford Miller, Army Medical Corps., Detroit.

*Macomb—*
Henry Wellard, Camp Beauregard, La.
Henry W. Deurloo, Camp Wallace, Texas.
Paul Feldman, address unknown.

*Manistee—*
John F. Konopa, Fort Custer, Mich.

*Marquette-Alger—*
W. J. Schutz, U. S. Army, address unknown.
B. C. Baron, U. S. Army, address unknown.

*Medical Society of North Central Counties—*
Roelof Lanting, Camp Livingston, La.

*Mecosta-Osceola—*
Lt. Paul Ivkovich, Camp Croft, S. C.

*Menominee—*
Lt. John R. Heidenrich, Camp Wallace, Texas.

*Monroe—*
Louis Goodman, Camp Wallace, Texas.

*Muskegon—*
Major Louis LeFevre, Fort Sam Houston, Texas.
Lt. Norman Scholle, Waco, Texas.

*Newaygo—*
Lt. B. F. Gordon, Fort Custer, Mich.

*Northern Michigan—*
Capt. Samuel L. Miller, Chanute Field, Ill.

*Oakland—*
C. H. Benning, U. S. P.H.S., San Juan, P. R.
Lt. Albert Faulconer, Fort Custer, Mich.
Lt. Colonel Harold A. Furlong, Selective Service Headquarters, Lansing, Mich.
John R. Hubert, Seward, Alaska.
Richard E. Olsen, U. S. Navy, Pearl Harbor, T.H.
Ross J. Porrit, Camp Forrest, Tennessee.
Arthur L. Stanley, Camp Livingston, La.
P. V. Wagley, Milwaukee Induction Station, Milwaukee, Wis.
Arthur J. Wentz, U. S. Navy, Brooklyn Navy Yard, New York.

*Ontonagon—*
S. H. Rubinfeld, Coleman, Texas.

*Ottawa—*
Lt. D. C. Bloemendaal, Fort Custer, Mich.

*Saginaw—*
V. E. Cortopassi, Camp Gulick, Canal Zone.
Harold Immerman, in Far East, exact address unknown.
Robert Lurie, Phoenix, Ariz.
Richard Mudd, Carlisle Barracks, Pa.
Suel A. Sheldon, somewhere in the Atlantic.
Herbert C. Wallace, Camp Livingston, La.

*St. Clair—*
Robert Biggar, address unknown.

*St. Joseph—*
John W. Rice, U. S. Navy, Great Lakes, Ill.

*Tuscola—*
T. E. Hoffman, U. S. Navy, Great Lakes, Ill.
Robert E. Fisher, San Antonio, Texas.
H. F. Vail, Camp Beauregard, La.

*Van Buren—*
Edwin Terwilliger, Fort Sam Houston, Texas.
Carl Boothby, Lawrence, Michigan (home address).
R. R. Gidding, Bloomingdale, Mich. (home address).

*Washtenaw—*
George H. Agate, Lawson General Hospital, Ga.
Thomas H. Blair, Fort Custer, Mich.
Capt. Dan J. Bulmer, R.O.T.C., Ann Arbor.
Fenimore E. Davis, Fort Benjamin Harrison, Ind.
Charles E. Dowman, Atlanta, Ga.
Paul H. Jordan, Starke General Hospital, Charleston, S. C.
Lt. Donald Floyd Moore, Galveston, Texas.
Capt. Harold Miller, A.P.O. 916, San Francisco, Calif.
Frank H. Power, Fort Jackson, S. C.
Paul O. Rague, Fort Custer, Michigan.
Stephen Reynolds, Hoff General Hospital, Santa Barbara, Calif.
Robert Denham, Letterman General Hospital, San Francisco, Calif.
Alvin Schopp, Camp Shelby, Miss.
Leslie Mundt, Fort Leonard Wood, Mo.
Wm. Houston, Fort Bliss, Texas.
Chas. F. Wilkinson, Fort Jackson, S. C.
Albert E. Quarton, Fort Custer, Mich.
Peter Rowe, Fort Shelby, Miss.
Noyes L. Avery, address unknown.
Paul W. Runge, Camp Livingston, La.
Bert M. Bullington, Fort Benjamin Harrison, Ind.
Robert C. Kimbrough, Walter Reid Hospital, Washington, D. C.
Leon Ferber, Camp Claiborne, La.
A. J. French, Army Medical Museum, Washington, D. C.
H. H. Hunt, Fort Sheridan, Ill.
Allen Shapiro, Fort Sam Houston, Texas.
Hershel L. Browns, Fort Sam Houston, Texas.
W. Kaye Locklin, Fort Bliss, Texas.
John W. Thomson, U. S. Marine Hospital, Detroit, Mich.
Gerhard H. Bauer, Camp Forrest, Tenn.
Walter King, Pine Camp, New York.
Dugald MacIntyre, Wm. Beaumont Hospital, El Paso, Texas.
Merle Musselman, Fort Sam Houston, Texas.
Svend Pedersen, Army Medical School, Washington, D. C.
John A. Ryan, Fort Benning, Ga.
Gerald A. Sludder, Fort Bliss, Texas.
Daniel C. Thomson, Will Rogers Field, Oklahoma City, Okla.
Henry Uphold, U. S. Marine Hospital, Norfolk, Va.
Spires Whitaker, Fitzsimmons General Hospital, Denver, Colo.

*Wayne, Army—*
Sidney Louis Adelson, 1st Lt., Langley Field, Va.
Lambert James Agin, 1st Lt., Selfridge Field, Mich.
Max Alexander, 1st Lt., Selfridge Field, Mich.
H. H. Angell, 1st Lt., Stotsenberg, P. I. T.
LeRoy Charles Askwig, Capt., Fort Custer, Mich.
Benjamin Henry Bader, Capt., Fort Benning, Ga.
Sanford Alvin Bennett, Capt., Carlisle Barracks, Pa.

*(Continued on Page 276)*

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Robert Edward Lee Berry, 1st Lt., Camp Forrest, Tenn.
Martin L. Biery, 1st Lt. Injured in service. Now at Rochester, Minn.
Leonard Birndorf, 1st Lt., Fort McClellan, Ala.
L. T. Brancheau, 1st Lt., Fort Leonard Wood, Mo.
Geo. M. Brown, 1st Lt., Fort Knox, Ky.
W. N. Brown, Lt., Camp Blanding, Fla.
Paul Granger Brownell, 1st Lt., Fort Jackson, S. C.
Glendon Joseph Bush, Capt., Sheppard Field, Texas.
William J. Campbell, 1st Lt., Fort Sam Houston, Texas.
Leslie Caplan, 1st Lt., Randolph Field, Texas.
Harold Carron, 1st Lt., Scott Field, Ill.
V. H. Carstensen, 1st Lt., Ellington Field, Texas.
Roscoe William Cavell, Major, Army Induction Center, Detroit, Mich.
Niles A. Clarke, Capt., Camp Beauregard, La.
Robert Prescott Clifford, 1st Lt., Fort Leonard Wood, Mo.
Z. B. Cigany, 1st Lt., Camp Shelby, Miss.
Harold Conn, 1st Lt., Camp Livingston, La.
Cecil D. Conrad, 1st Lt., Sheppard Field, Texas.
James Albert Cook, 1st Lt., Scott Field, Ill.
James Cairns Cook, 1st Lt., U. S. Army Induction Center, Detroit, Mich.
Kenneth Robert Cross, 1st Lt., Fort Sam Houston, Texas.
Harold Mark Dana, Capt., Fort Custer, Mich.
Linden L. Davis, Capt., Fort Sheridan, Ill.
Albert DeGroat, Capt., Fort Custer, Mich.
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Harry M. Dickman, 1st Lt., Camp Forrest, Tenn.
Jack Albert Dillahunt, 1st Lt., Fort McClellan, Ala.
Panfilo Camillo Di Loreto, 1st Lt., Fort Custer, Mich.
Herman Edward Diskin, 1st Lt., Fort Custer, Mich.
Everett William Durham, 1st Lt., Fort Bliss, Texas.
John Hoagland Easley, Capt., Camp Grant, Ill.
Mordecai Louis Falick, Capt., Ft. Jackson, S. C.
Meyer Jacob Feigelman, 1st Lt., Camp Wheeler, Ga.
Lee E. Feldkamp, 1st Lt., Fort Benning, Ga.
Nathanial Leroy Feldman, Major, Fort Custer, Mich.
Paul H. Feldman, 1st Lt., Fort Jackson, S. C.
F. Sinclair Finch, 1st Lt., Camp Grant, Ill.
C. M. Forcey, Capt., Fort Custer, Mich.
John Robert Forsythe, 1st Lt., Waco, Texas.
Harry W. Free, Capt., Fort Bliss, Texas.
A. S. Friedlaender, Capt., Fort Custer, Mich.
Sidney Friedlaender, 1st Lt., Camp Forrest, Tenn.
William Duncan Frostie, 1st Lt., Sheppard Field, Texas.
Morris Irving Goldin, 1st Lt., Fort Custer, Mich.
Harry Sage Gorelick, Capt., Proving Ground, Ill.
Martin Jack Gorelick, Capt., Camp Bowie, Texas.
Devitt L. Gordon, 1st Lt., Patterson Field, Ohio
Samuel Benjamin Goss, Capt., Mich. Induction Personnel, Detroit, Mich.
Eugene Gourley, 1st Lt., Camp Davis, N. C.
Arthur Stanwood Gray, 1st Lt., Camp Claiborne, La.
Morris Zaeriah Greenberg, Capt., Fort Custer, Mich.
Sol Cyrus Grossman, 1st Lt., Army Induction Sta., Kalamazoo, Mich.
Emil Gutman, 1st Lt., Camp Livingston, La.
B. R. Gutow, Capt., Fort McClellan, Ala.
John Morgan Hammer, 1st Lt., Fort Custer, Mich.
Raymond W. Hammer, 1st Lt., Camp Davis, N. C.
Joseph Hanelin, 1st Lt., Army Air Base, Tuscon, Ariz.
Carl Hanna, Lt. Col., Camp Beauregard, La.
C. R. Hankins, Lt. In Alaska.
F. N. Hanson, 1st Lt., Selfridge Field, Mich.
Jesse Terryl Harper, Major, Fort Custer, Mich.
Donald Grant Harrel, Capt., Fort Jackson, S. C.
Isador Jerome Hauser, Capt., O'Reilly Gen. Hospital, Springfield, Mo.
Allison Burney Henderson, 1st Lt., Fort Bragg, N. C.
Walter N. Herbert, 1st Lt., Fort Custer, Mich.
Edward N. Hinko, 1st Lt., Fort Custer, Mich.
Arthur Wallace Hoyt, 1st Lt., Fort Leonard Wood, Mo.
Samuel Jacob Hyman, 1st Lt., Camp Livingstone, La.
Benjamin Juliar, 1st Lt., Camp Grant, Ill.
Donald John Kennedy, Capt., Fort Wayne, Mich.
Wm. D. Koon, Lt., Fort Custer, Mich.
E. W. Krass, Major, Adams Field, Ark.
James V. Lammy, Major, Camp Beauregard, La.
Mendell Lansky, 1st Lt., Fort McClellan, Ala.
Sol Leland, 1st Lt., Fort Jackson, S. C.
Floyd Banbury Levagood, 1st Lt., Fort Knox, Ky.
Raymond Osler Lewis, 1st Lt., Chanute Field, Ill.
Frederic Goff Loomis, 1st Lt., Camp Shelby, Miss.
Guy Lincoln Loranger, Capt., Chanute Field, Rantoul, Ill.
Herman McNeill Lord, 1st Lt., Fitzsimons Gen. Hospital, Denver, Colo.
Morris Dewitt McCauley, Capt., Fort Sam Houston, Texas.
Charles W. McColl, 1st Lt., Camp Beauregard, La.
M. R. Marshall, Lt., Camp Grant, Ill.
Frederick Paul Maibauer, 1st Lt., Will Rogers Field, Okla.
Ben Marks, 1st Lt., Detroit Induction Board, Detroit, Mich.
Ervin Herman Markus, Capt., Ft. Mason, Calif.
Richard D. Martin, 1st Lt., Fort Knox, Ky.
John Wright Middleton, Capt., Camp Grant, Ill.
Kenneth T. Miller, Capt., Fort Leonard Wood, Mo.
David Goldstein Morton, 1st Lt., Camp Bowie. Texas.
Ralph Alderman Munslow, 1st Lt., Camp Berkeley, Texas.
Walter George Neeb, 1st Lt., Camp Shelby, Miss.
Herbert L. Nigg, 1st Lt., Fort Leonard Wood, Mo.
Clarence Isaac Owen, Major, Selective Service System, Detroit, Mich.
Alvin L. Perry, 1st Lt., William Beaumont General Hosp., El Paso, Texas.
I. S. Pfeiffer, 1st Lt., Camp Shelby, Miss.
Francis J. Phillips, 1st Lt., Camp Croft, S. C.
L. A. Pratt, Capt., Fort Sheridan, Ill.
George William Pugsley, Jr., Capt., Army Medical School, Washington, D. C.
Anthony Marion Putra, 1st Lt., Camp Forrest, Tenn.
John G. Reid, 1st Lt., Camp Beauregard, La.
Wesley Reid, Major, Camp Polk, La.
Samuel Gerrson Reisman, Capt., Scott Field, Ill.
Fred Wm. Rau, 1st Lt., Fort Benning, Ga.
Alven Andrew Reske, 1st Lt., Fort Sam Houston, Texas.
Geo. E. Rex, 1st Lt., Manila, Philippine Islands.
Harold A. Robinson, Capt., Scott Field, Ill.
G. T. Riggs, Lt., Jefferson Barracks, Mo.
Charles Theodore Root, Major, Fort Sam Houston, Texas.
Paul Wm. Range, 1st Lt., Camp Livingston, La.
D. B. Ruskin, 1st Lt., Camp Polk, La.
Nathaniel Sandler, 1st Lt., O'Reilly Gen. Hospital, Springfield, Mo.
Henry Schlesinger, 1st Lt., Hq. 6th Corps. Area, Chicago, Ill.
Richard H. Schug, 1st Lt., Selfridge Field, Mich.
Isadore Allen Shapiro, Capt., Fort Sam Houston, Texas.
Mahlon S. Sharp, 1st Lt., Fort Armstrong, Honolulu. T.H.
John George Slevin, Major, Fort Custer, Mich.
Fred Robert Smith, 1st Lt., Camp Polk, La.
Wm. S. Smith, 1st Lt., Fort Leonard Wood, Mo.
Edward J. Smyka, 1st Lt., Camp Robinson, Arkansas.

*(Continued on Page 278)*

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*(Continued from Page 276)*

Milton Leon Sorock, Capt., Stark General Hospital, Charleston, S. C.
Maurice Jordan Spector, 1st Lt., Camp Davis, N. C.
Carl Julius Sprunk, Capt., Army Induct. Sta., Kalamazoo, Mich.
Benjamin B. Stamell, 1st Lt., Mich. Induction Personnel, Detroit, Mich.
Sherburn Moore Stanley, 1st Lt., Carlisle Barracks, Pa.
Edward Stein, 1st Lt., Albuquerque, New Mexico.
M. Steiner, 1st Lt., Camp Davis, N. C.
M. E. Strand, Lt., present address unknown.
Marcus Howard Sugarman, Capt., Fort Custer, Mich.
Neil Holland Sullenberger, 1st Lt., Fort Sam Houston, Texas.
Hyman Symons, 1st Lt., Langley Field, Va.
Alfred Eugene Thomas, 1st Lt., Tuskegee, Ala.
Alexander Vida, Capt., Chanute Field, Rantoul, Ill.
George Kenneth Vollmar, Capt., Fort Sheridan, Ill.
George W. Walbright, 1st Lt., Ft. Wayne, Mich.
Enos Gaylor Walker, Major, Fort Custer, Mich.
Warren S. Wallace, 1st Lt., Langley Field, Va.
Loren Edwin Wanless, 1st Lt., Will Rogers Field, Okla.
William James Warner, 1st Lt., Army Air Base, Tuscon, Ariz.
Robert Daniel Warnke, Capt., Fort Custer, Mich.
Raphael Weisberg, 1st Lt., Langley Field, Va.
E. P. Whalen, Lt., Fort Bragg, N. C.
Robert K. Whitely, 1st Lt., Induction Center, Detroit, Mich.
Fred Kenneth Wietersen, 1st Lt., Army Exam. Sta., Peoria, Ill.
Israel Wiener, 1st Lt., Fort Benning, Ga.
Edwin M. Williams, 1st Lt., Randolph Field, Texas.
F. R. Williams, Lt., Camp Grant, Ill.
William P. Williamson, Capt., Camp Polk, La.
Wesley W. Willson, Major, Fort Sheridan, Ill.
Carleton Webb Winsor, Capt., Wright Field, Ohio.
George Winton, 1st Lt., Camp Croft, S. C.
Carl Witus, 1st Lt., Sherman-Denison, Texas.
T. E. Woodward, Lt., present addresss unknown.
Myron Richard Zbudowski, Capt., Fort Custer, Mich.

*Wayne, Navy—*

William S. Baker, Lt. j. g. At Sea.
G. A. Brough, Lt. Comm., Aviation Base, Grosse Ile, Mich.
John R. Brown, Lt., Great Lakes Naval School, Ill.
Charles A. Campbell, Lt. j. g., Naval Recruiting Station, Detroit.
Edward A. Cathcart, Lt. Comm., Orders Received.
T. P. Clifford, Lt. Comm., 9th Naval District, Great Lakes, Ill.
J. S. Cowan, Lt. j. g., last known address Honolulu.
E. W. Fitzgerald, Lt. Comm., Naval Reserve Armory, Toledo, Ohio.
Angus G. Goetz, Lt. Comm., 9th Naval District, Great Lakes, Ill.
B. E. Goodrich, Lt. Comm., Navy Service School, Dearborn, Mich.
B. F. Hoopes, Lt. j. g., Navy Service School, Dearborn, Mich.
H. H. Jackson, Comm., Aviation Base, Grosse Ile, Mich.
J. M. Jacoby, Lt. j. g., 9th Naval District, Great Lakes, Ill.
R. E. Johnson, Lt. j. g., C. H. Buell Hospital, Sheridan, Pa.
H. C. Jones, Lt. Comm., Great Lakes Training School, Great Lakes, Ill.
A. E. Kozlinski, Lt. j. g., Marine Recruting Office, Detroit, Mich.
D. L. Martinson, Lt. j. g. At Sea.
Hugh A. Miller, Lt. j. g. At Sea.
A. B. McGraw, Lt. Comm., Navy Service School, Dearborn, Mich.
George S. Olmstead, Lt. j. g. At Sea.
Arno Ross, Lt. Comm., present address unknown.
Herman D. Scarney, Lt., Aviation Base, Grosse Ile, Mich.
Harold W. Warner, Lt. j. g. At Sea.
M. C. Wilson, Lt. Comm., Naval Armory, Detroit, Mich.

*Wexford-Missaukee*

Captain G. P. Moore, Fort Custer, Mich.
Capt. M. R. Murphy, Fort Leonard Wood, Mo.
Lt. R. Wm. Albi, A.P.O. D. 801, St. Johns, Newfoundland.
Lt. F. L. Hoagland, present address unknown.

Please send any corrections or additions to the above incomplete list to 2020 Olds Tower, Lansing, Michigan.

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## INJUSTICE TO THE MEDICAL OFFICER

In recruiting an army from civil life the most important factor is the physician, on whose judgment the personnel is selected, and by whose attentions they are retained in service. Many of these medical men abandon established practice to serve their country for the minimum salary of the lieutenant grade. Since most of them are below middle age, they have not yet acquired a competence, and support of their families depends upon the army salaries.

Frequently, dissatisfaction is expressed by these army surgeons because they have not received advancement which they had reason to anticipate, while officers of the line are more rapidly advanced to the grade of captain and major, with the accompanying increase of salary which is necessary to maintain their families. It is stated that an attorney, when entering legal army service in the Judge Advocate department, is at once given the grade of captain. Which is the more essential for army welfare, preservation of the soldier's health or attention to his legal status? No officer from civil life enters upon army service so well equipped to function immediately in the duties of his office as the medical man, since his army professional requirements are substantially the same as those he has been exercising in civil life. Therefore, it would seem that above all officers he should be entitled to promotion with as much speed as is consistent with army regulations.

Yet discontent is generated among medical officers by reason of long retention in the grade of lieutenant, with insufficient income to maintain their families at home, often necessitating curtailments which it seems unjust to demand of them. It is reported that at times a doctor has sought retirement in order to return to private practice and relieve the hardship entailed on his family but the increased demand for army medical men has required his retention in service.

In view of the great increase in the army, which is inevitable as the result of participation in active warfare, an incessant demand will be made for more doctors who will be expected to enlist to serve their country. They will respond in adequate numbers as they have always done when summoned by the call of duty. Since a successful, efficient army depends upon satisfaction of its personnel, it would appear that attention might wisely be directed to the adjustment of this salary injustice, of which medical officers are complaining.—*Northwest Medicine,* January, 1942.

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*** Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154.*

## TREATMENT OF SHOCK FROM WAR INJURIES

This paper emphasizes four aspects of the treatment of shock that have an especial application to war injuries: (1) Use of oxygen therapy, (2) Use of adrenal cortical hormone therapy, (3) Use of certain of the newer blood substitutes, and (4) Special advances in the treatment of burn shock. Emphasis is placed on the intravenous use of one per cent pectin solution as a blood substitute. This substance was first used for shock by F. W. Hartman in collaboration with the author and has the advantages of cheapness, availability, and ease of sterilization and preservation. In the treatment of burn shock blood plasma has especial indications. For simplicity in calculating the plasma dosage, Harkins' formula is adopted, namely to *give 100 c.c. of plasma for every point the hematocrit exceeds the normal of 45.* For children a proportionately smaller dose is indicated.—Henry N. Harkins, M.D., Detroit, Michigan. (See page 287.)

## THE VALUE OF REST IN BRONCHIAL ASTHMA

In the therapy of bronchial asthma today, sufficient emphasis has not been placed upon the importance of non-allergic measures, such as rest. Ordinarily where rest is employed it is often self-imposed by the patient and is of short duration. Therefore, its many advantages are overlooked by patient and physician. Prolonged bed rest is indicated in those cases in which their asthma has become chronic, in those with complications of marked emphysema and cardiac impairment, and in those who present multiple allergies.

Prolonged bed rest is indicated in all patients who have not benefited from conventional allergic therapy. An analysis of fifteen patients with bronchial asthma who had failed to respond satisfactorily to usual anti-asthmatic measures reveals definite improvement in nine cases, or 60 per cent, who had received prolonged bed rest.—Barney A. Credille, M.D., Flint, Michigan. (See page 293.)

## THE RELATIONSHIP OF RETICULO-ENDOTHELIAL SYSTEM TO CELLULAR AND HUMORAL IMMUNITY

The reticulo-endothelial system of highly phagocytic cells performs certain vital physiologic protective and conservational functions, including the phagocytosis of senile or damaged blood cells, bacteria and foreign debris. Under certain hereditary and environmental circumstances, however, the phagocytic activity of these cells may become accentuated to the point of producing several distinctive disease syndromes, important to distinguish from somewhat similar syndromes, depending upon a primary bone marrow pathology.

Congenital hemolytic icterus, essential thrombocytopenic purpura and primary splenic granulopenia are examples of red blood cell, blood platelet or neutrophilic granulocyte deficits in the peripheral blood, which may be promptly and permanently corrected by successful splenectomy.

Recent fundamental studies, in vivo and in vitro, of these same reticulo-endothelial cells attribute the origin of normal plasma globulins to these units. Furthermore, using marked "dye antigens," these phagocytic cells have been demonstrated to engulf and break down this material with subsequent fragmentation of the cytoplasm, coincident with the appearance of the first demonstrable specific antibodies in the culture medium.—Charles A. Doan, M.D., Columbus, Ohio. (See page 295.)

## SOME USES OF CHEMOTHERAPY IN OPHTHALMOLOGY

Sulfanilamide, sulfapyridine, sulfathiazole and sulfadiazine have a demonstrated clinical value. These substances call for an expanding use by the ophthalmologist. It is important to remember that other established therapeutic agencies need not be discarded nor neglected with the use of the substances above. Also, some patients are hypersensitive to the compounds named above and require other forms of treatment.—Parker Heath, M.D., Detroit, Michigan. (See page 303.)

## RECENT ADVANCES OF CHEMOTHERAPY IN INFECTIOUS DISEASES

In World War I, 37 per cent of the men killed in action died of diseases which are now amenable to treatment with the sulfonamide drugs. There are reasons for hoping that if the same conditions should obtain in the present war, at least 15 per cent of the total deaths from all causes, or about one-quarter of those who are not killed in action, may be avoided by the use of sulfonamides alone. In some diseases the results will be even better.

In addition to saving lives, the sulfonamides greatly reduce the amount of time lost from sickness. They also prevent wound and other infections when used early. The death rate from spi-

*(Continued on Page 282)*

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nal meningitis, pneumonia, wound infections, and dysentery is now less than at any other time in the history of these diseases. Also the time lost from sickness is greatly shortened.

New drugs are now being developed every year and rapid advances are being made. During the past year alone, two new drugs have been introduced—sulfadiazine and sulfaguanidine. The choice of various sulfonamides in the treatment of infections is discussed in the paper.—Chester S. Keefer, M.D., Boston, Massachusetts. (See page 305.)

### ARTHRITIS—A CURABLE DISEASE?

The adage "Once an arthritic, always an arthritic" is believed to be a generalization not entirely accurate. Thus arthritis associated with specific infection, such as gonorrhea, responds readily to sulfonamide chemotherapy, and gout in its acute form is readily controlled by modern therapy.

The curability of rheumatoid arthritis has been long debated. Cecil feels that many factors enter into the outcome, such as age, temperament, constitution of the patient, et cetera. Of drugs, gold salts are the best single agent available. In a group of 235 patients treated with gold, 31 per cent had complete remissions and 35 per cent were greatly improved. However, relapses are prone to occur, and the toxic reactions which frequently follow gold therapy render it a dangerous agent in the hands of the inexperienced.

The symptoms of osteoarthritis can often be relieved by one of several methods among which are rest, iodides, and physical therapy. On the whole it is felt that the outlook in arthritis is brighter than formerly, and that we can look for still more progress.—By Russell L. Cecil, M.D., New York City. (See page 311.)

### MEDICAL SERVICE IN SMALL INDUSTRIES

The majority of workers are employed in small plants and 97 per cent of these employ fewer than 250 men. A program for providing adequate medical and health service for the small industry is, therefore, essential. The loss in working days due to non-occupational illness is much greater than that for occupational diseases and the resulting wastage is enormous. Medical service for small industries will necessarily devolve upon local physicians. Medical associations are aware of this responsibility and opportunity of the medical profession to serve small industries on a part time basis. If only a small reduction can be made in absenteeism, it will accomplish an economic saving of inestimable value to American industry at the present time.—A. J. Lanza, M.D., New York City. (See page 315.)

## SYPHILIS DISCOVERED DURING INDUSTRIAL EXAMINATIONS

**Report of the MSMS Syphilis Control Committee**

The Industrial Health Committee and the Syphilis Control Committee of the Michigan State Medical Society have formulated the following general policies for handling cases of Syphilis discovered during the routine industrial physical examinations.

These recommendations have been submitted to The Council of the MSMS and have been adopted as the policy of the Michigan State Medical Society:

1. Kahn reports to be in separate locked file open only to the plant physician.

2. Information from the examining physician as to Syphilis given to the personnel department shall be *statistical only.* No names or specific cases to be discussed with officers or personnel department.

3. All full time and part time industrial physicians to send employes to their family physician with the report of the positive serologic test.

4. The physicians accepting these cases must assume responsibility for clinical and serologic check up to establish or disprove the diagnosis; and to carry out at least a minimum standard course of treatment for reasonable protection of patient, fellow employes and employer.

In the Program for Syphilis Control published in The Journal MSMS, December, 1937, pages 979-982, will be found the following recommended standard of treatment which the Syphilis Control Committee again recommends:

| *Week* | *Treatment* |
|---|---|
| 1- 4 | Bismuth 1 c.c. intramuscularly at weekly intervals and potassium iodide 10 to 30 gr., T.i.d., p.c. by mouth. |
| 5-12 | Eight weekly doses Neo. 0.45-0.6 gm. or mapharsen, .04-.06 gm. (first dose, one-half full dose). |
| 13-22 | Eight weekly doses bismuth and iodides, as before. |
| 23–30 | Eight weekly doses neo-arsphenamine or mapharsen. |
| 31-40 | Ten weekly doses bismuth and iodides. |
| 41-48 | Eight weekly doses neo-arsphenamine or mapharsen. |
| 49-60 | Twelve weekly doses bismuth and iodides. |
| 61-72 | Rest period. |
| 73-84 | Twelve weekly doses of bismuth and iodides. |
| 85-96 | Rest period. |
| 97-108 | Twelve weekly doses bismuth and iodides. |

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, February 25, 1942—Bay City—Speaker: Donald C. Somer, M.D. Detroit—Subject: "Internal Fixation in The Treatment of Fractures."

Wednesday, March 11, 1942—Bay City—Speaker: George C. Thosteson, M.D., Detroit—Subject: Diabetes."

*Berrien*—Wednesday, March 11, 1942—Niles—Speaker: Major C. I. Owen, Lansing—Subject: "Medical Aspects of the Selectee."

*Calhoun*—Tuesday, March 3, 1942—Battle Creek—Speakers: C. W. Brainard, M.D., Clifford B. Taylor, M.D., and Stanley T. Lowe, M.D.

*Dickinson-Iron*—Thursday, March 5, 1942—Coneva Club—Speaker: John W. Towey, M.D.

*Eaton*—Thursday, February 19, 1942—Charlotte—Speaker: Francis J. Weber, M.D., Lansing—Presentation of color talking movies on diagnosis and treatment of syphilis.

*Genesee*—Tuesday, March 10, 1942—Flint—Business Meeting.

*Gratiot-Isabella-Clare*—Thursday, February 19, 1942—St. Louis—Speaker: Eugene Hand, M.D., Saginaw—Subject: "Dermatitis Venenata and Its Relation to War Gas Burns."

*Ingham*—Tuesday, February 17, 1942—Lansing Speaker: John B. Youmans, M.D., Nashville, Tennessee—Subject: "The State of Food Supplies and Nutrition in France in 1940-41." Tuesday, March 17, 1942—Lansing—Speaker: Samuel Marshall, M.D., Boston—Subject: "Medical and Surgical Treatment of Gastric Lesions."

*Jackson*—Tuesday, February 17, 1942—Jackson—Speaker: Thomas H. Horan, M.D., Detroit—Subject: "Peritoneoscopy; Direct Cholecystograph; Intra-Abdominal Photograph in Color." Tuesday, March 17, 1942—Jackson—Speaker: Stanley W. Insley, M.D., Detroit—Subject: "Clinical Allergy."

*Kalamazoo*—Tuesday, February 17, 1942—Kalamazoo—Speaker: Fred M. Hodges, M.D., Ann Arbor—Subject: "The Cyclotron as a Medical Instrument." Tuesday, March 17, 1942—Kalamazoo—Speaker: Howard B. Lewis, M.D., Ann Arbor—Subject: "Proteins—Recent Studies of Clinical Significance."

*Kent*—Tuesday, March 10, 1942—Grand Rapids—Speakers: J. Duane Miller, M.D., Clarence H. Snyder, M.D., George T. Aitken, M.D., and Henry J. Pyle, M.D.—Roundtable Discussion on "The Management of Simple Fractures."

*Muskegon*—Friday, February 20, 1942—Muskegon—Speaker: Chauncey Maher, M.D., Chicago—Subject: "Hypertension." Friday, March 20, 1942—Muskegon—Speaker: Vincent J. O'Conor, M.D., Chicago—Subject: "The Urological Significance of Low Back Pain."

*Oakland*—Wednesday, March 4, 1942—Rotunda Inn—Speaker: Thomas J. Heldt, M.D., Detroit—Subject: "The Psychoneuroses—Their Recognition and Treatment."

*Oceana*—Friday, February 13, 1942—Speakers: Charles Flint, M.D., and Walter Lemke, M.D.—Subject: "Rupture of Right Auricle of Heart." March 13, 1942—Speaker: W. Gordon Robinson, M.D.—Subject: "Biochemistry and Present Treatment of Toxemias of Pregnancy."

*St. Clair*—Tuesday, February 3, 1942—Annual Dinner Meeting with Dentists and Lawyers of St. Clair County—St. Clair, Michigan. Tuesday, February 24, 1942—Port Huron—Speaker: Major C. I. Owen, Lansing—Subject: "The Doctor Prepares for War."

*St. Joseph*—Thursday, March 12, 1942—Sturgis—Speaker: F. B. Peck, M.D., of Eli Lilly—Subject: Illustrated lecture on the "Newer Types of Insulin and Their Uses."

*Shiawassee*—Thursday, February 19, 1942—Owosso—Speaker: George Curry, M.D., Flint—Subject: "Fractures," illustrated with colored movies.

*Washtenaw*—Tuesday, March 10, 1942—Ann Arbor—Program: A movie in technicolor entitled "Sex Hormones, Physiology, Diagnosis and Therapy."

*Wayne*—Monday, March 23, 1942—Detroit—Speaker: H. O. McPheeters, M.D., Minneapolis—Subject: "The Present Day Treatment of Varicose Veins." Monday, April 6, 1942—Detroit—Speaker: Eugene P. Pendergrass, M.D., Philadelphia—Subject: "Some Considerations Concerning the Roentgen Diagnosis of Pneumoconiosis and Silicosis." Monday, April 13, 1942—Detroit—Speaker: Frank J. Heck, M.D., Rochester, Minn., Monday, April 20, 1942—Detroit—Speaker: James R. McCord, M.D., Atlanta, Georgia—Subject: "Hypertension and Pregnancy." West Side (Wayne)—Wednesday, February 18, 1942—Detroit—Speakers: Dayton H. O'Donnell, M.D., William A. Irwin, M.D., N. M. Bittrich, M.D., and Mr. J. C. Ketchum.

## COUNCIL AND COMMITTEE MEETINGS

1. Medical Preparedness Committee—Tuesday, March 10, 1942—Wardell Hotel, Detroit—3:00 p. m.

2. Syphilis Control Committee—Sunday, March 15, 1942—Hotel Olds—Lansing—4:00 p. m.

3. Executive Committee of the Council—Thursday, March 26, 1942—Hotel Olds, Lansing—3:00 p. m.

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## CLEVELAND MEDAL AWARD

The Clement Cleveland Medal of the New York City Cancer Committee of the American Society for the Control of Cancer, established in 1937 by Mrs. Robert G. Mead, in memory of her father, Dr. Clement Cleveland, one of the pioneers in the movement to fight cancer with the weapon of lay education, was awarded in 1941 to Abbott Kimball, head of the advertising firm bearing his name, for the great help he had given to the educational campaign of the New York City Cancer Committee during the past few years. In presenting the medal, Dr. Frederic W. Bancroft, vice chairman of the Committee, said: "Only those who have worked with Mr. Kimball know and can fully appreciate what he has done, and those of us who know trust that he will be one of us for many years to come."

Mr. Kimball accepted the award not for himself alone, but for his associates and for the entire advertising profession, saying that as far as he could learn this was the first time a medical society of any kind had given the highest award in its power for a job of advertising and publicity.

Previous awards of the Cleveland Medal were made to Henry R. Luce, President of *Time*, Inc., to the National Association of Science Writers, to Dr. Francis Carter Wood, and to Dr. James Ewing. A special award was made in the spring of 1939 to Mlle. Eve Curie, for her book "Madame Curie."

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# Treatment of Shock from War Injuries*

By Henry N. Harkins, M.D., Ph.D., F.A.C.S.
Detroit, Michigan

Henry N. Harkins, M.D.
*B.S., 1925; M.S., 1926; Ph.D., (Medicine), 1928, University of Chicago. M.D., Rush Medical College, 1931. Associate Surgeon, Henry Ford Hospital. Member of Central Society for Clinical Research, Society for Experimental Biology and Medicine, Institute of Medicine of Chicago, American Human Serum Association, Michigan Academy of Science, Arts and Letters, Central Surgical Association, and Michigan State Medical Society. F.A.C.S., Diplomate of the National Board of Medical Examiners, member of the American Board of Surgery.*

The subject of shock is arousing so much interest that to review even the recent publications in this paper is impossible. In a monograph[22] on shock published only five months ago the author reviewed the subject and cited over 800 references to it, most of which had appeared in the preceding five years. Since that time the American and the British medical press have been especially replete with new advancements concerning shock. At the present time I will attempt to discuss only four of the most recent developments in the field. These are, in brief:

1. The use of oxygen in shock treatment.
2. The use of adrenal cortical extract in shock treatment.
3. Newer blood substitutes, and
4. Special advances in the treatment of burn shock.

Recent reviews on shock include those of Harkins,[21,22,23,25,26,27] Riley,[56] Adams,[1] McMichael,[45] Dunphy and Gibson,[12] and Bowers.[7] A useful working definition of shock is the following:

Shock is a progressive vasoconstrictive oligemic anoxia.

### The Use of Oxygen in Shock Treatment

One of the reasons for irreversibility of the shock syndrome is anoxic damage to tissues. The importance of anoxia has been emphasized by Hartman, McClure and their associates.[31,44] It is essential to use early prevention and continued treatment to prevent tissue injury. The importance of oxygen administration in shock has been stressed by Wood, Mason, and Blalock (1940);[72] Schnedorf and Orr (1941);[59,60] Schnedorf, Lorhan, and Orr (1941);[58] and by Willson (1941).[70]

Davis (1941)[9] recently carried out an investigation concerning the effects of oxygen administration to animals with different types of shock. Although benefits were obtained, the results were not uniform and Davis concluded: "Administration of oxygen should be regarded merely as a subsidiary form of treatment in cases of shock. The best results are obtained before a considerable diminution in the blood volume has occurred, regardless of whether shock is associated with hemodilution or with hemoconcentration. The administration of oxygen is useless in cases of severe shock if the blood volume continues to decrease. If the blood volume is low but no further decrease occurs, oxygen may have the effect of stabilizing the low blood pressure and preventing its further fall until other forms of therapy are available."

Mutch (1940)[54] analyzed methods of oxygen administration. He states that the tube and funnel method did not appreciably raise the oxygen content of the alveolar air. The other three methods in common use: nasal catheters, tents, and the B.L.B. mask effect a considerable rise in the alveolar oxygen. Mutch points out that

*From the Division of General Surgery, Henry Ford Hospital, Detroit.

for simplicity in remembering, the alveolar oxygen percentages attained are multiples of 15 as follows:

| | |
|---|---|
| Normal | 15 |
| Nasal catheters | 30 |
| Tent (usual) | 45 |
| Tent (extreme) | 60 |
| B.L.B. Mask | 90 |

It is to be pointed out that nasal catheters depend on a ration system and the supply of oxygen is not at all dependent on the demand. In fact, as the demand increases, the alveolar oxygen percentage decreases. On the other hand, both the oxygen tent and the B.L.B. mask enable oxygen to be regulated to meet the demand rather than be limited to a fixed ration. Where only a small amount of oxygen is needed, nasal catheters attached to a Tudor-Edwards spectacle frame are of value. In more serious cases tents or masks are indicated.

### The Use of Adrenal Cortical Extract in Shock Treatment

It is well known that cortex of the adrenal gland is essential to life and that animals with a deficient adrenal cortex are unusually susceptible to procedures that commonly produce shock. The converse of these ideas, namely, the use of adrenal cortical hormones in the treatment of shock, rests on a less firm foundation. This subject has recently been reviewed by Harkins (1941),[22] in an editorial in the *Journal of the American Medical Association* (1941),[13] by Loeb (1941),[41] by Kendall (1941),[37] and by Selye, Dosne, Bassett and Whitaker (1940).[61] As Kendall points out, there are several compounds present in the adrenal cortex with varying and at times opposing actions. These include desoxycorticosterone, corticosterone, compound E and others. Whole gland extracts may have these compounds present in varying amounts whereas the synthetic desoxycorticosterone represents only one of them. Before the treatment of shock with these substances can be put on a rational basis, it would be advantageous for physicians to state more definitely which substances were used rather than to loosely group them together under the term "adrenal cortical hormone."

While this phase of the therapy of shock is still in the experimental stage, it offers much promise. The recent report of Rhoads, Wolff, and Lee (1941)[55] on the use of adrenal cortical extract in the treatment of burn shock is especially encouraging.

The recent article of Besser (1941)[3] is of interest because it casts doubt on the value of desoxycorticosterone acetate in the prevention of operative surgical shock. Besser gave seventy-two patients seen at the University of Iowa Hospitals pre-operative desoxycorticosterone acetate in adequate doses (15 to 30 or more mgm. in the twelve-hour period immediately preceding operation). In this group of seventy-two patients which included serious operations, especially thoracoplasties, lobectomies, pneumonectomies, gastric resections, intestinal operations, and colectomies, twenty-three patients (31 per cent) developed shock. In a similar untreated group of sixty-eight cases following equally serious operations, only twenty-seven (29 per cent) developed shock. Besser concluded that a comparison of these two series indicated little significant difference. In so far as clinical cases are concerned, this study would tend to discredit the value of pre-operative desoxycorticosterone acetate.

### Newer Blood Substitutes

Numerous blood substitutes have been suggested, tried and abandoned. The chief ones as used at the present time are listed in Table 1. Taylor and Waters (1941)[66] emphasized very strongly that the maintenance of blood volume is the chief requisite in the treatment of shock due to hemorrhage. They stated: "It has been amply proved that the prime requirement in hemorrhage is to fill the vessels and so maintain the blood pressure. Compared with the reduction in the volume of the blood the loss of red cells is of very secondary importance as an immediate threat to life."

Recent reviews all appearing within the past five months of the use of blood substitutes in wartime include those of Sturgis,[65] Blalock and Mason,[6] Harkins and McClure,[27] and Schaefer.[57]

1. *Blood Itself.*—Blood still remains one of the best substances to replace blood that is lost. Important references on the subject of blood transfusion have appeared during the past six months.[2,8,10,11,14,19,20,35,36,42,43,50,51,52,62,67,69,71] The article by Yott (1940)[73] should also be consulted.

TABLE I. LIST OF BLOOD SUBSTITUTES

1. Blood itself.
2. Water.
3. Crystalloids: saline, glucose, Ringer's or Locke's solution.
4. Gum acacia and gelatin.
5. Ascitic fluid.
6. Red cell solution.
7. Hemoglobin — Ringer solution.
8. Plasma — normal or concentrated, natural or reconstituted dried, and human or bovine.
9. Serum — natural or reconstituted dried.
10. Casein digestate.
11. Isinglass solution (7 per cent).
12. Pectin solution (1 per cent).

2. *Water*—This substance has little value for intravenous use but adequate maintenance of water balance should always be striven for in shock cases.

3. *Crystalloids.*—The transitory effect of these substances is best epitomized by quoting from the recent article of Taylor and Waters (1941)[27] who recognized the transitory effects of saline infusion in shock, stating: "It diffuses freely from the vessels; any rise in pressure which does follow the transfusion of saline is therefore very evanescent."

4. *Gum Acacia and Gelatin.*—Gum acacia and gelatin were introduced during the first World War. The former substance has the disadvantages that it is antigenic and that it leads to more or less permanent deposits in the liver.

5. *Ascitic Fluid.*—This fluid is used chiefly in Russia[15] and in New Orleans[51] and its administration is still in the experimental stage although it has been used successfully in patients by Maes and Davis.[47]

6. *Red Cell Solution.*—This solution is chiefly of value in cases associated with severe anemia.

7. *Hemoglobin — Ringer's Solution.* — If preliminary alkalinization of the urine is not adequately carried out, blockage of the renal tubules is apt to result.

8. *Plasma.*—One of the best recent reviews on the use of plasma as a blood substitute is that of Mahoney, Kingsley, and Howland (1941).[48] Keys, Taylor, and Savage (1941)[38] reported on the use of animal plasma. Other reports of value have appeared in the past six months.[5,18,28,30,34,40,46,49,53,63,64,68] The method of Hartman (1940)[32] of drying plasma in cellophane cylinders (the rotor pervaporator) has an important wartime application because of its cheapness, ease of keeping the plasma sterile, rapidity, and ready application to mass production.

9. *Serum.* — Serum is favored in England while plasma is preferred in this country. Serum has the advantage of not developing fibrin deposits on standing as does plasma, while plasma is supposed to give less reactions and can be obtained from the blood that has been standing in blood banks. Recent articles on serum include those of Levinson and Wolf (1941),[39] Harrison and Picken (1941),[29] and an editorial in the *Lancet* (1941).[16]

10. *Casein Digestate.* — Casin contains all of the eleven essential amino acids and has been used intravenously as discussed by Harkins.[22]

11. *Isinglass.*—The use of isinglass as a blood substitute was introduced by Taylor and Waters (1941)[41] of Toronto. Isinglass is in reality fish gelatin and is obtained from sounds or swimming bladders of various species (sturgeon, hake, sea trout and others) and is used commercially chiefly by the brewing industry. When purified by the special process of the Toronto workers and used as a 7 per cent solution in buffered 0.9 per cent sodium chloride, it fulfilled rather rigid specifications of a transfusion fluid. It is readily soluble, lacks toxicity and is readily sterilized by boiling without decomposition. The final product is a perfectly clear pale yellow solution. Taylor and Waters concluded that "isinglass in saline is capable of restoring the blood pressure after it has been lowered by hemorrhage and of saving the lives of animals which, had no treatment been instituted, undoubtedly would have died. These animals made a complete and uneventful recovery." There are no published reports of the use of isinglass in human shock cases.

12. *Pectin.* — This substance has the advantage that if it proves to be a satisfactory blood substitute it can be obtained from fruit by the ton. This ready availability would be of immense value in case of war. The idea of using pectin as a blood substitute was originated by Dr. F. W.

Hartman and research work on its experimental and clinical application was carried out by Hartman in collaboration with Schelling, Harkins, and Brush.[33] At the present time pectin solution has been used successfully as a blood substitute in over thirty clinical cases.

shock produced by (a) hemorrhage, or (b) bile peritonitis and seemed about as useful as whole blood in combatting the resultant shock. In other dogs plasmapheresis was done and the plasma replaced by pectin. In these experimental animals, amounts of pectin corresponding to over

CALCULATION OF PLASMA DOSAGE DURING FIRST WEEK AFTER BURN. (CASE - B. S.)

| DATE | 2-11-41 (AM) | 2-11-41 (PM) | 2-12-41 | 2-13-41 | 2-14-41 | 2-15-41 | 2-17-41 |
|---|---|---|---|---|---|---|---|
| HEMATOCRIT | 57 | 62 | 56 | 52 | 49 | 40 | 36 |
| HEMOGLOBIN (CALCULATED FROM HEMATOCRIT) | 126 | 137 | 124 | 115 | 109 | 89 | 80 |
| PLASMA PROTEIN (Gm./100cc.) | 7.5 | 7.0 | 8.1 | 5.9 | 6.0 | 5.9 | 5.7 |
| 1. CALCULATED PLASMA DOSAGE: METHOD OF ELKINTON, et al. | 1250cc. | 1760cc. | 970cc. | 1290cc. | 970cc. | 20cc. | -460cc. (EXCESS) |
| 2. CALCULATED PLASMA DOSAGE: METHOD OF BLACK. | 1040cc. | 1350cc. | 970cc. | 650cc. | 410cc. | -620cc. (EXCESS) | -1250cc. |
| 3. CALCULATED PLASMA DOSAGE: FORD HOSPITAL FORMULA | 1200cc. | 1700cc. | 1100cc. | 700cc. | 400cc. | 0 | 0 |
| ACTUAL AMOUNT OF PLASMA GIVEN (AFTER READINGS) | 300cc. | 1200cc. | 700cc. | 0 | 0 | 0 | 0 |

Fig. 1. A comparison is made between the calculations of plasma dosage by the two more complicated formulas (1 and 2 above) with the author's method (3 above). It is seen that the agreement is fairly good. In the last horizontal column the actual amount of plasma given is shown.

The pectin is obtained from manufacturers as a powder which is made into a 0.75 per cent buffered solution. The viscosity and osmotic pressure of some samples are even slightly greater than those of plasma. As the material is manufactured without bacterial action such as may occur with acacia and the solution may later be sterilized by autoclaving, it is not only sterile, but pyrogen free. While pectin is temporarily taken up by the liver, it is not permanently retained in that organ as is acacia. In fact after 14 hours no evidence of hepatic retention was found in experimental animals. The temporary character of the body's retention of pectin is further demonstrated by its excretion in the urine. Absolute alcohol precipitation tests on urine indicate that the excretion of pectin is small during the first eight to 12 hours after the injection, but reaches a maximum within 24 hours, and within 48 to 72 hours the major portion of the pectin is eliminated unchanged.

Examinations of the liver, kidneys and other organs of animals receiving pectin intravenously showed no evidences of toxicity. Since pectin is a complex colloidal carbohydrate of high molecular weight, one would not expect it to have antigenic properties and experiments bore out this supposition, revealing no evidences of anaphylaxis.

Pectin was given to a series of animals with

three liters in an average sized man were rapidly injected with benefit to the blood pressure and shock condition.

One of the big advantages of pectin over plasma, in addition to the relatively unlimited supply, is the ease of sterilization and preservability. These two factors combine to make it especially useful in wartime. The fact that the pectin is excreted within thirty-six hours would tend to make one believe that it would be of only temporary value. It is a well known and established fact, however, that the bulk of shock cases will recover if they can be tided over that most serious first thirty-six-hour period. The pectin is of value then when it is most needed and its later excretion is probably an advantage rather than a disadvantage.

**Special Advance in the Treatment of Burn Shock**

Because an average of 6,000 persons die from burns in the United States every year and because 60 to 75 per cent of these die from burn shock, this subject is of extreme significance even in peacetime. The usual treatment of shock is of value, including oxygen and adrenal cortical extract, but the use of substances to replace the plasma that is lost at the site of the burn is of especial importance.

Since plasma rather than whole blood is lost in burns, administration of the former best sup-

plies the deficiency. In the past year three methods of calculating the amount of plasma to be given have put the entire subject on a quantitative basis. These three methods are as follows and as shown in Figures 1 and 2:

a. *The method of Harkins (1941).*[24] — This method is the simplest of the three and is *to give 100 c.c. of plasma for every point the hematocrit is above the normal of 45.* This method applies to adults and involves the assumption that the patient's pre-burn hematocrit was normal. This assumption is also inherent in the other two methods. For children the amount of plasma is calculated proportionately according to body weight, with the average adult weight set as 70 kilograms. If the plasma protein level is below normal, this method gives too low a value. In such a case an additional 25 per cent of the calculated amount of plasma should be added for every gram the protein level is below 6.0 gm. It is noteworthy, however, that a hypoproteinemia seldom occurs in an adequately treated burn case and hence this correction seldom has to be applied.

b. *The Method of Black (1940).*[4]—This method is used in England and uses the following formula:

X = amount of plasma to be given in c.c.

$$X = \left(5 - \frac{500}{Hb_2}\right) 1000,$$ where $Hb_2$ is the hemoglobin observed after the burn

c. *The Method of Elkinton, Wolff, and Lee (1940).*[17]—This method uses a more complicated formula and takes account of both hemoconcentration and possible low plasma proteins.

Y = amount of plasma to be given in gm.

$$Y = 3.5\ W - \frac{W\ (100 - Ho)\ HnPo}{2(100\text{-}Hn)\ Ho},$$ where

W = body weight in Kgm.
Ho = observed hematocrit
Hn = normal hematocrit (=44)
Po = observed plasma protein in gm./100 c.c.

This formula can be simplified from this unwieldly form by substituting the normal hematocrit — since this has to be done anyway — and by expressing the result in c.c. of plasma to be given instead of in grams (since donor's plasma is never analyzed quantitatively anyway).

X = amount of plasma to be given in c.c.

$$X = 49\ W - \frac{5.5\ (100 - Ho)\ Po\ W}{Ho}$$

An illustrative case treated at the Henry Ford Hospital will be cited with a comparison of the results of the three methods of calculation of plasma dosage.

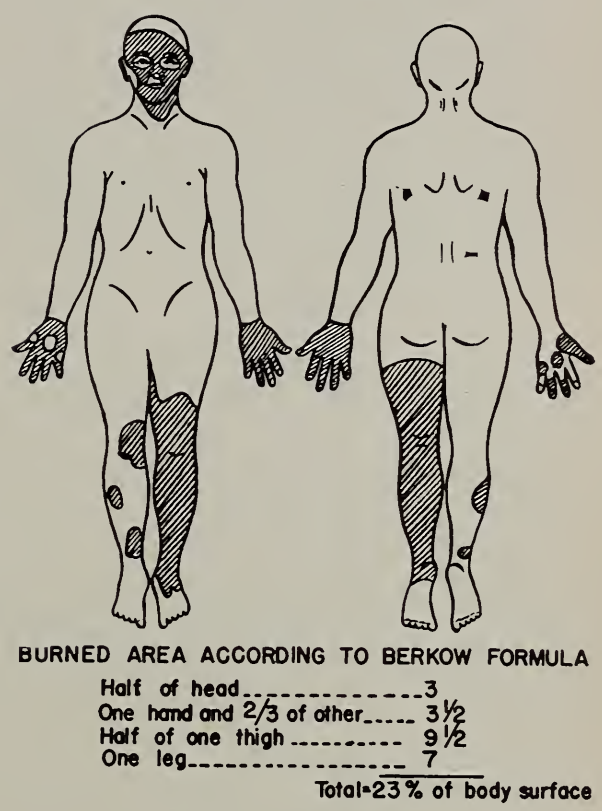


Fig. 2. Diagram of the burned areas in patient M. K. Actual measurement after skin grafting showed the area grafted (which was less than that burned) to be 1.73 square feet.

Patient M. K., male, aged thirty-eight years. Severe gasoline burns of lower extremities covering 20 per cent of body surface (1.73 square feet).

Observed initial hematocrit after burn = 60 per cent.
Observed initial plasma protein = 6.68 gm.
Wgt. of patient = 80 kgm.
2,000 c.c. plasma given in twelve hours.
New hematocrit = 45 per cent (normal).
New plasma protein = 6.49 gm.
No further plasma needed.

The patient never showed any sign of shock and left the hospital completely recovered after several skin-grafting procedures.

Results of Formula Calculations:

a. Method of Writer

Hematocrit is 15 points above normal of 45, and plasma protein is above 6.0 gm.; therefore, 1,500 c.c. plasma needed.

b. Method of Black

Hematocrit 60 approximately corresponds to 132 hemoglobin:

$$X = \left(5 - \frac{500)}{132)}\right) 1000 = 1210 \text{ c.c. plasma needed.}$$

c. Method of Elkinton

$$X = 49 \times 80 - \frac{5.5 \times 80 \times 40 \times 6.68}{60}$$

$$= 1960 \text{ c.c. plasma needed.}$$

It is thus seen that the three methods agree rather well for the examples cited. The method of the author, however, is by far the simplest and thus is more practical and more applicable at the bedside and in the clinic.

## Conclusions

1. The three modern developments in the treatment of shock that are most worthy of attention are the use of:

   a. Oxygen.
   b. Adrenal cortical extract.
   c. Blood substitutes.

2. Among the blood substitutes, plasma and pectin solution are especially promising from both the standpoint of peacetime and wartime use.

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**ANNUAL MICHIGAN POSTGRADUATE PROGRAM FOR GRADUATES IN MEDICINE**

**Upper Peninsula Program May 25-30**

**Houghton Ironwood Marquette**
**Power Sault Ste. Marie**

The subject material for the Upper Peninsula course will include the discussion of problems in internal medicine, general surgery, pediatrics, and obstetrics and gynecology, and will be presented by four clinicians specializing in these fields. On account of the exigencies of the War, personnel cannot be designated at this time, but the detailed program will be mailed later to all physicians in the Upper Peninsula. (See page 320 for other courses.)

# The Value of Rest in Bronchial Asthma*

**By Barney A. Credille, M.D.**
**Flint, Michigan**

BARNEY A. CREDILLE, M.D.
*M.D., Tulane University, 1918. In charge of Allergy Department, St. Joseph Hospital. Consulting Allergist, Hurley Hospital, Member of American Society for the Study of Allergy, and Michigan State Medical Society.*

▪ THE general condition of the asthmatic should receive careful attention. It may be a time worn phrase, but it is an important one in this instance to treat the patient as well as his asthma.

Seemingly unimportant non-allergic factors may be overlooked in the study and investigation of the allergic patient in our zeal to reveal some unusual specific etiological allergen. These same offenders may later prove to be a handicap to the patient's recovery.

Vaughan[3] tells us that there is some evidence that, given a vagotonic individual, these so-called non-allergic or non-specific factors may provoke reactions in the absence of any allergens at all. He states that fatigue, emotional stress, and a number of undermining factors may so disturb a physiological adjustment that the patient will be susceptible to doses of allergens which otherwise would be without effect. It is interesting to observe the number of asthmatic patients who place so much emphasis on such non-specific factors, especially fatigue. For this reason, in the past two years I have been convinced that therapeutic effectiveness will be much greater if we stress the importance not only of fatigue, but all possible non-allergic factors. With fatigue playing such a rôle, it is interesting to observe that Sherwood[2] claims that fatigue lowers body resistance. Under such conditions it would be impossible to stimulate immunity if the patient does not have the resistance necessary for its production.

Rest is the most effective measure for functional fatigue. There is a wide range in the requirements of rest in both health and disease. The question again comes up of individual treatment. It has been my observation that the

*Read before the Midwestern Forum on Allergy, January 13, 1941, in Indianapolis, Indiana.

asthmatic requires more rest than is generally accorded him. Reference here is not made especially to those patients having acute attacks because it is obvious that in many cases bed rest is already self-imposed. While the handling of the acute attack is urgent and important, what we are especially interested in is the prevention of subsequent attacks. Bed rest is not necessarily essential in all asthmatics, but more rest would surely do no harm.

### Indications for Bed Rest

**Bed rest should be utilized for certain types of patients with asthma. It is indicated in all of those who are weak and feeble and complain of marked fatigue. It should be used for those who have associated other allergic conditions, especially migraine, hay fever, and urticaria and also those with complications of emphysema, sinusitis, and cardiac involvement. Prolonged bed rest is indicated in those patients who have failed to secure relief from usual allergic therapy.**

What does bed rest do for the patient?

1. Bed rest restores quiet and relaxation.
2. Diet restrictions can be more easily regulated when patient is in bed. Preferably in hospital.
3. Rest enables patient to increase and maintain weight.
4. Bed rest often insures mental rest as well as body rest.
5. Rest in bed tends to minimize contact with certain offending allergens that otherwise would be a source of trouble.

Three or four months of bed rest are often adequate. If there is not a favorable response after at least two months of rest, chances are that bed rest will not influence the asthma and also offers the probability of other attending conditions and complications.

### Case Report

My attention was first drawn to the possibilities of rest in a woman forty-six years of age with a resistant asthma. She had sustained a fracture of the pelvis and was confined to bed for two and one-half months. This rest period with supportive treatment seemed to stabilize her and with a continuation of allergic therapy, all of which conferred relief which she had not had in years. Her attacks gradually became less and at the end of her confinement to bed she was free of asthma and had gained eight pounds in weight. This experience stimulated more extensive application of rest to other types of allergic patients as well as a small, but interesting, group of asthmatics. Observations were made on fifteen patients with asthma who had not responded satisfactorily to conventional anti-asthmatic therapy. Ten of these cases were proved to be allergic. Three were bacterial type, and two non-allergic. Most of these patients received rest in bed both in the hospital and at home. Anti-asthmatic measurs were continued during bed rest period. The minimum period of rest was two months. The maximum period was three and one-half months. There was a definite improvement in nine of these patients. The other six cases, while showing general improvement of health and being much less dyspneic in bed, continued to have recurrences after being up and about. Three of the six patients had a rather marked emphysema and one of this group a bronchiectasis. Those nine patients showing a distinct improvement were kept under observation from three to sixteen months. Their improvement was manifested in freedom of attacks from two to six months. In five there was a gain in weight from seven to thirteen pounds. This was evidently due to the freedom of asthma, more sleep, and relaxation, and a nutritious diet. It is possible, too, that part of the relief was brought about by more complete control of diet while under observation in bed, both in the hospital and at home. The best results were observed in those cases in whom allergy could be demonstrated and these began to clear up earlier.

The ambulatory asthmatic experiences, besides the dyspnea from asthma and exertion, too much expenditure of energy from various kinds of activities. Pottenger[1] states that a person even sitting in a chair raises the energy requirements of the body twenty per cent over that required when lying flat on a couch. With a normal individual expending such energy one can readily imagine the enormous strain and energy requirements in the asthmatic. Naturally the needless exertion handicaps the already burdened patient. The writer feels that all asthmatics who have not responded to the usual therapy should receive, in addition to their treatments, adequate rest in bed because a great many of such patients are incapacitated anyway, and their contributions to society in their present status are but little.

This paper would not be complete if something was not mentioned about more emphasis being placed on the need of rest immediately following desensitization treatments. This does not mean that they should necessarily go to bed, but over-exertion and over-activity should be curtailed. The writer has seen some systematic reactions which were thought to be greatly influenced by over-exertion following injections of antigens.

In closing, it might be added that I am in accord with Vaughan[3] when he stated that in asthma, as in nearly all of the clinical allergic manifestations, experience shows that treatment based on concepts other than those of allergy often give material relief. He further states, assuming that allergic therapy has been more successful than any of the other procedures, "One must yet realize that there is a sufficiently high

proportion who are not yet relieved, and that a combination of allergic therapy with non-allergic methods will sometimes accomplish the desired results."

### Summary

In the investigation and treatment of the asthmatic more emphasis should be placed on the importance of the non-allergic factors such as fatigue, emotional upset, et cetera.

The ambulatory asthmatic patient experiences a tremendous expenditure of energy, not only from the dyspnea but from the usual daily activities. Therefore they require more rest, especially the chronic type.

From the study of this series of fifteen cases, while representing a rather limited number of patients, the results have been significant and it is felt that all resistant cases of bronchial asthma should be given benefit of prolonged rest in bed in conjunction with other therapy.

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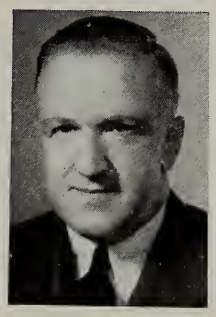
### DEMAND AND SUPPLY OF PHYSICIANS

The medical schools have produced an adequate supply of graduates in medicine. At one time these men all entered private practice. To do otherwise was likely to be regarded as irregular or unethical; but evolution comes out of changes and today the medical graduate has a choice of specialized fields in which he can engage ethically, profitably, and with professional as well as personal satisfactions. Preparation for these special fields is not necessarily confined to medical postgraduate schools. In some of these one must "learn by doing" under the guidance of pioneers who have established and developed the early special services—in industrial health, in public health administration and supervision, in hospital and sanatorium administration, in medical society administration, in school health supervision, in investigating and approving grants given to qualify men for specific health needs by Foundations which employ medically trained men.

Health is now a large and complex concept, and has many specialized fields of its own. To the younger medical graduates of today there are increasing opportunities for men of vision, initiative, and energy who will recognize and accept these new opportunities and fit themselves to succeed in these new fields rather than to join the already over-crowded field of general medical practice. Service must be adapted to human and social needs as they arise.—L. A. W., *Journal of the Medical Society of New Jersey,* Dec., 1941.

# Relationship of the Reticulo-Endothelial System to Cellular and Humoral Immunity

By Charles A. Doan, M.D.
Professor of Medicine,
Director of Medical Research,
Ohio State University,
Columbus, Ohio



C. A. Doan, M.D.
*B.S., Hiram College; M.D., 1923 Johns Hopkins Medical School. R.H.O., Johns Hopkins Hospital, 1923; Assistant Department of Anatomy, Johns Hopkins, 1924; Assistant Department of Medicine, Harvard Medical School; Assistant Physician, Boston City Hospital; Assistant Thorndike Memorial Laboratory; Associate in Medical Research, Rockefeller Institute, 1925-30. Fellow and member of numerous scientific and medical organizations. President Central Society for Clinical Research, 1940; President Ohio Public Health Association, 1939 to date; Director-at-large National Tuberculosis Association. Author of scientific articles and books on medical subjects, particularly hematology and tuberculosis.*

▪ Much emphasis is being placed at the present time upon individual health and physical fitness in terms of the national emergency incident to a continuing series of international political crises. The physicians' rôle under such circumstances of universal mobilization of effort, is to see that every known fact essential to preserving and strengthening human resistance to disease is put promptly to work. Universal dissemination and application of such knowledge, desirable enough in peacetime, becomes as urgent a necessity in time of emergency as is food production and distribution, or munitions manufacture and transportation. War is invariably followed by famine, and famine by pestilence, and natural resistance, upon which each individual depends for survival, is modified greatly under these altered environmental conditions. The importance of "adequate" instead of minimal nutrition in this nation today is just beginning to be appreciated, and experimental evidence is accruing to show the *sine qua non* of certain essential food elements to effective cellular and humoral immunity in both virus and bacterial infections.[9] There are also other factors of known significance which I wish to emphasize here.

It is only since about the turn of this century,

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and more particularly since 1913, when Aschoff and Kiyono[1] crystallized and popularized the reticulo-endothelial concept of tissue cell (macrophage) phagocytosis, that the cellular contribution to resistance really assumed significance in our thinking. This hypothesis furnished an important corollary and supplement to Metchnikoff's studies[19] of the rôle of "microphage" or neutrophilic granulocyte in acute inflammatory reactions. Today it is believed that the reticulo-endothelial system represents a functional unit comprised of mesenchymal derivatives possessing the common property, highly developed, of specific cellular phagocytosis. In this discussion it would hardly seem appropriate or pertinent to survey the various theories and hypotheses which have developed around the exact origins and morphologic relationships of the cells contributing to and participating in this system. Our interests here are chiefly functional, about which there remains little controversy, and reference may be made to other readily available sources[5,6,15] for the details of cell classification.

The evidence is fairly conclusive that physiologically the macrophage engulfs old, or senile, or injured red blood cells, white blood cells and probably thrombocytes, and, after intravacuolar "digestion," conserves important basic constituents, such as iron, for resynthesis. The segregation and disposition by ingestion of bacteria, and the phagocytosis of identifiable particulate débris, such as anthracite or silica in the lung, may be demonstrated any time by any clinical pathologist. The experimental cytologists have repeatedly shown the predilection of Kupffer cells of liver and macrophages of spleen, bone marrow, lymph nodes, omentum, and diffuse connective tissues for the intracellular isolation and concentration of pyrrhol or trypan blue, carmine or carbon. Thus, these phagocytic scavengers of the mammalian tissues are basically protective and conservational in the normal body economy.

However, these very essential functions, if and when over-accentuated, may result in one or other of, or in a combination of, characteristic pathologic and clinical syndromes. The spleen is the site of the greatest single localized concentration of macrophages in the human individual, and it is the organ of greatest physiologic sequestration and reservoir reserve for all circulating blood elements. It is an organ which hypertrophies under many conditions with a parallel increase in parenchymal sequestration capacity, and with, frequently, a corresponding hyperplasia of macrophages. If combined with these potential facilities for rapid segregation and destruction, there should exist or develop some peripheral or central bone marrow interference with the usual integrity of any given group of circulating cells, the stage would be perfectly set for a more or less rapid pathologic depletion of essential elements. This is exactly what happens in fact, repeatedly, and, whenever such a mechanism is recognized, the successful removal of all splenic tissue is followed by complete cellular reëquilibration and permanent clinical cure.

### Congenital Hemolytic Icterus

Physiologic erythrophagocytosis is followed promptly (within not more than two hours probably)[10] by red cell disintegration and the splitting of the hemoglobin molecule into globin and hematin. The latter is then broken down into: (1) the iron-free pigment hematoidin, which becomes the bilirubin of the plasma in hemolytic jaundice, or is secreted by the hepatic parenchymal cells as bile; and (2) hemosiderin, in which form iron remains stored until needed for hemoglobin resynthesis in the bone marrow. Mann and his associates[18] have demonstrated conclusively that the macrophages of spleen and to some extent bone marrow, not the stellate cells of the liver, are normally the principal sources of bilirubin, and Kanner[16] has reported, and I can confirm, that no histologic alteration in the Kupffer cells of the liver occurs in hematogenous icterus. Upon these observations may be based the modern approach to the pathologic physiology of human congenital hemolytic icterus. A dominantly inherited constitutional tendency to excessive hemolysis, upon which many environmental factors (pregnancy, trauma, minor infections) may play disastrously, has been clearly established.[7,8] The more active phases of this disease are invariably associated with a directly proportionate degree of splenomegaly, in which excessive parenchymal erythrocyte segregation and phagocytosis may readily be demonstrated. Moreover, splenectomy, when successfully accomplished, and if it includes the removal of all accessory splenic tissue — even though the operation be performed during an acute hemoclastic crisis[7] — invariably results in an immediate, complete, and usually permanent remission. Any significance, other

than diagnostic, of defective, spherocytic erythrocytogenesis in congenital hemolytic icterus remains an open question. Haden[13] believes spherocytosis to be the congenital prerequisite to increased erythrocyte fragility, while Dameshek[3,22] interprets spherocytosis as the end result of hemolysin activity upon mature red blood cells without any inherent marrow defect.

More frequently than not in the fairly large series of families with congenital hemolytic jaundice here studied, a concomitant leukopenia and moderate thrombocytopenia have been encountered. This could, perhaps, be attributed to a myelophthisic displacement of myelocytes and megakaryocytes by the excessive, compensatory, erythroid hyperplasia always found in the marrow during hemolytic activity. The fact, however, that splenectomy is invariably followed *immediately,* not only by a marked and substantial increase in the red cells, but also by a hyperleukocytosis and thrombocytosis (Chart I)[7] at least strongly suggests that any marrow contribution to this clinical syndrome is dependent upon an underlying and more essential splenic dysfunction. Too, patients in the series subjected to frequent exacerbations of hemolysis and anemia secondary to minor infections and traumata — occasionally to the point of chronic invalidism — have been rendered completely free of such episodes following splenectomy. Lord Dawson of Penn, whose interest in this particular disease caused him to follow over a period of some forty years members of affected families in Britain both with and without splenectomy, particularly emphasized this restoration to physical normalcy following surgery, citing a number of splenectomized patients who successfully endured and survived the difficulties and hardships of severe trench warfare during World War I.[4]

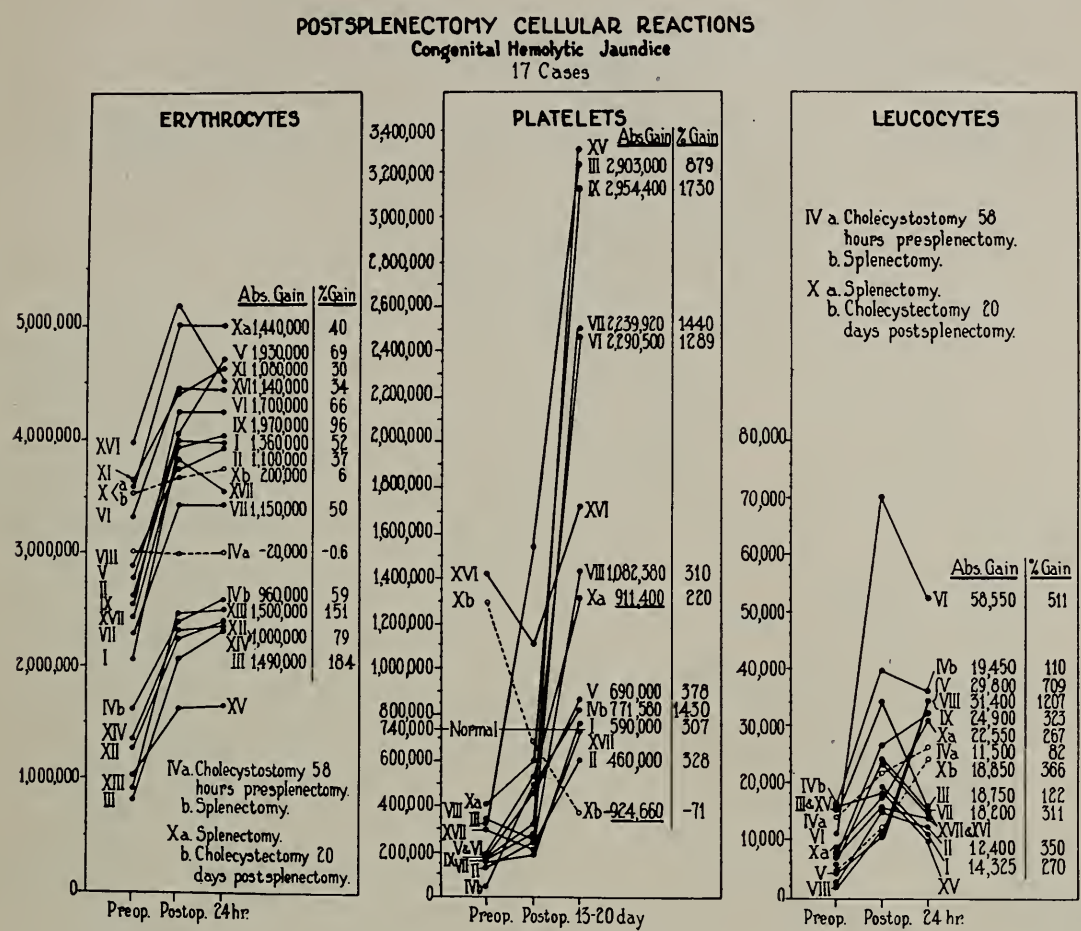


Chart I.

**Furthermore, long continued chronic hemolysis, with occasional subacute exacerbations, eventually results in cholelithiasis in some 60 to 70 per cent of such individuals, with**

gall-bladder colic leading to gall-bladder surgery in a not inconsiderable proportion.[7] Prophylactic splenectomy, even in the absence of acute crises or profound anemia and jaundice, is, therefore, indicated when the diagnosis has been clearly established. The trait, once inherited, subjects its victim to the potential danger of an acute hemoclastic crisis in any decade of life, susceptible of precipitation by any one of a number of uncontrollable environmental factors.

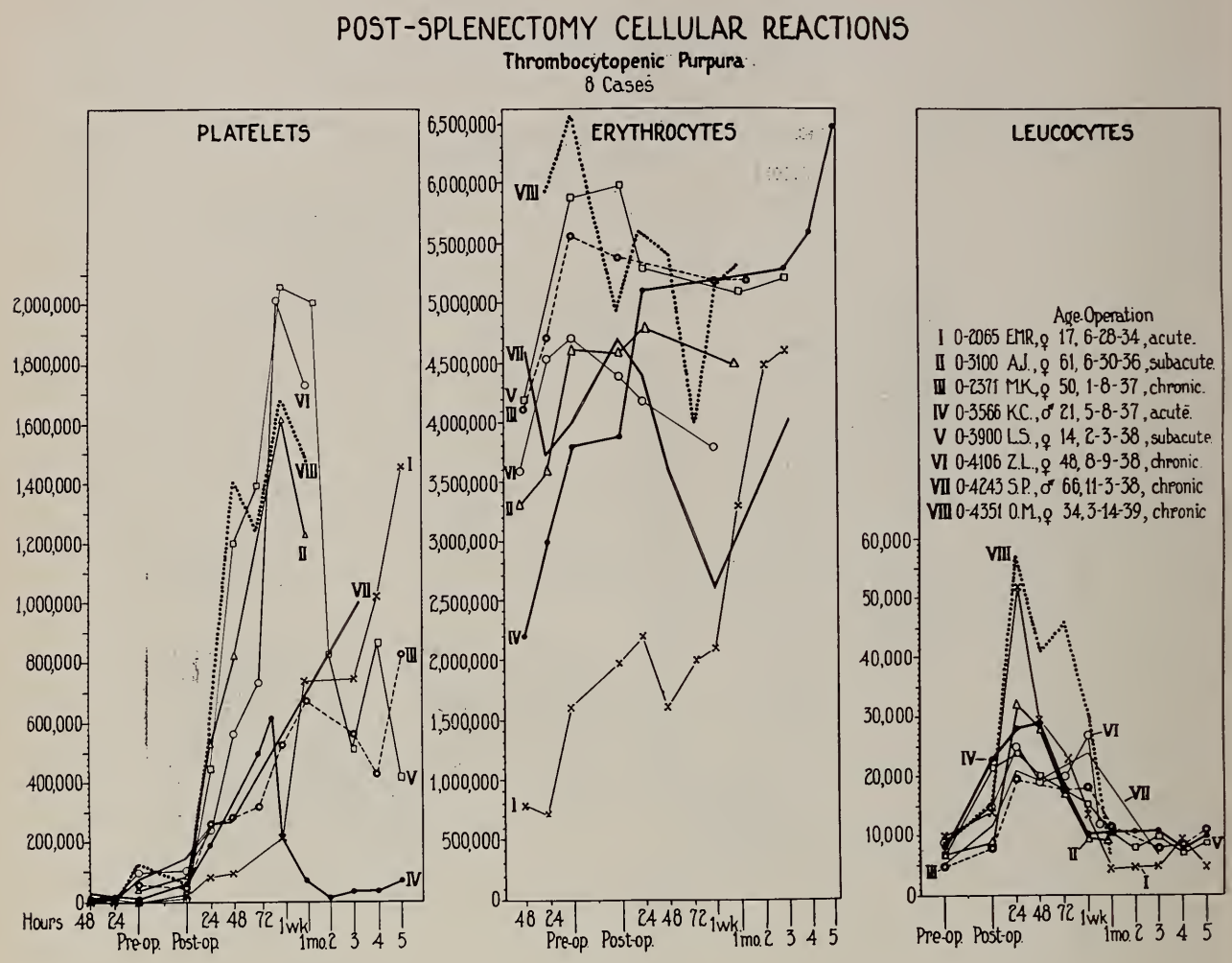


Chart II.

Farrar, Burnett, and Steigman[11] report a patient with hemolysinic anemia with hepatic degeneration who responded dramatically to emergency splenectomy although excessive erythrophagocytosis by splenic macrophages was not apparent. A hemolysin was demonstrated in the blood serum before, but not after, removal of the spleen. Thus, at least two possible mechanisms of red blood cell destruction must be attributed to the spleen in hemolytic states; the one, direct phagocytosis by reticulo-endothelial cells, the other, indirect hemolysin elaboration, probably by the same cells.

The integrity and sufficiency of the marrow in this disease has been found unimpaired for any and every demand, physiologic as well as pathologic, when splenic tissue has been eliminated. The widespread impression that individuals may not long survive, or that they are incapable of ordinary physical effort in the absence of the spleen, is entirely unfounded. That they may not survive if a functionally pathologic spleen is permitted to remain in situ is a fact.

### Essential Thrombocytopenic Purpura

Among the many purpuric syndromes is one which may be designated descriptively as essential thrombocytopenic purpura. Occasionally chronically, but usually more or less suddenly, an

abnormal bleeding tendency develops, without any apparent cause, in the absence of preceding or concomitant infection or endocrine disturbance, and with a negative history for allergy, exposure to industrial chemicals, or sedormid or other drug medication. Plasma prothrombin is 100% and serum vitamin C within physiologic limits. The blood platelets are found to be markedly diminished, the bleeding time is prolonged, and, while a clot forms, it does not retract after many hours. The red blood cells and reticulocytes are normal unless there has been excessive hemorrhage—uterine, gastro-intestinal, epistaxes. The white blood cells are likewise unaffected except when leukocytosis follows acute blood loss. The sternal bone marrow is cytologically normal, with perhaps some increase in the proportion of young, otherwise qualitatively normal, megakaryocytes. There are no abnormal physical findings other than the purpura; no adenopathy; *no splenomegaly.* An adrenalin test may or may not produce a transitory increase in circulating platelets. Such evidence points to the thrombocytopenia as the principal cause of the hemorrhagic diathesis. It tends to exonerate the bone marrow in terms of apparent megakaryocytic adequacy, and suggests some peripheral factor or factors: (1) excessive selective, pathologic phagocytosis and destruction of circulating platelets by the macrophage group of scavenger cells;[17] (2) humoral inhibition of normal platelet delivery from the marrow;[12] or (3) thrombocytolysis by "thrombocytopen."[23] To the spleen has been attributed all three of these possible mechanisms, and rightly so, if the prompt return of platelets to the circulation with disappearance of purpura following successful splenectomy are dependable criteria (Chart II). A pre-operative, fresh whole blood transfusion will render surgery safe in these cases. The megakaryocytes in the bone marrow observed, both before and after splenectomy, showed no qualitative or quantative changes upon which to base an explanation for the very prompt reversal of platelet concentration in the circulation.[25] The reticulo-endothelial phagocytes in the spleen, therefore, probably play an important part, either directly or indirectly, in this syndrome of essential thrombocytopenic purpura.

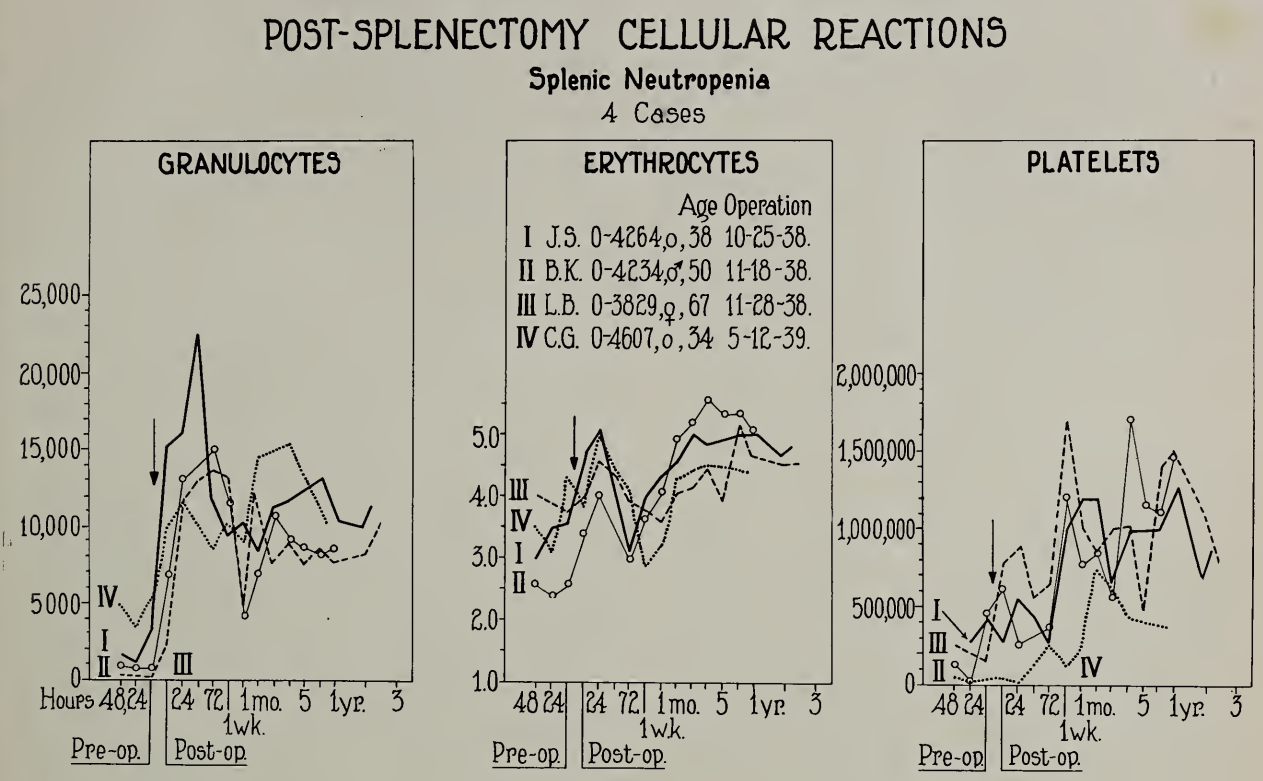


Chart III.

### Primary Splenic Granulocytopenia

It only remained to discover a granulocytopenic syndrome, analogous to congenital hemolytic icterus and essential thrombocytopenic purpura, to complete the trilogy of diseases theo-

retically dependent upon altered, physiologic, splenic, R-E system functions. In May, 1939,[24] four cases with profound granulocytopenia believed to represent such an entity were reported from this clinic. Splenomegaly was a prominent finding in the acute, subacute and chronic forms of this malady, the bone marrows invariably showed myeloid hyperplasia, and splenectomy resulted in complete recovery in every instance (Chart III). Moreover, supravital studies of scrapings from the splenic parenchyma made immediately after its removal showed many granulocytes, and from 5 to 10 large, highly phagocytic macrophages in every oil immersion field of the microscope, with the majority of intact engulfed cells being granulocytes. In some patients there were associated secondary depressions of platelets and/or red cells, and the adrenalin test resulted in a temporary increase in all of the circulating elements. Every functional test for liver integrity has been negative, liver and gall bladder have been grossly normal in appearance at the operating table, and biopsies of liver tissue have confirmed the absence of any pathologic alterations in this organ. These latter findings separate quite sharply this entity from the so-called Banti's syndrome, in which cirrhotic portal hypertension[20] and terminal ascites are uniformly emphasized essentials.

### Mixed Splenic R-E System Syndromes

If three sharply defined hemolytic, thrombocytolytic, and granulopenic syndromes, respectively, have been recognized, and each has been proved to be related primarily to splenic dysfunction, both by appropriate laboratory tests and by the therapeutic test of splenectomy, it would be strange indeed biologically if certain overlapping syndromes did not appear from time to time. This should be particularly true if the suspected mechanism in these three instances is based upon R-E system hyperplasia and increased selective phagocytosis. Every combination of partial or extreme peripheral depletion of the circulating elements deriving from the bone marrow, but without marrow hypoplasia, has been encountered clinically in our patients, when studied from the standpoint of critical analysis of mechanism in each individual rather than by previous classical diagnostic generalization.

One example may perhaps suffice to illustrate this point. A twelve-year-old white girl was admitted to the Research Service, University Hospital, May 6, 1941, with the chief complaints of anorexia, weakness, persistent low grade fever, frequent epistaxes, bleeding gums, and generalized ecchymoses and petechiæ of skin and mucous membranes. The patient had been in usual health until February 5, 1941, when she became ill with what was diagnosed as "influenza and bronchitis with sore throat and enlarged cervical lymph glands." One week after the initial onset, small subcutaneous ecchymoses appeared first on the arms and subsequently in "crops" over the entire body, which phenomenon continued up to and including the time of admission. Some 20 epistaxes were reported, the last having continued for twenty-four hours just prior to entering the hospital. A "diarrhea" of four to five "tarry" stools daily had persisted for two weeks, with a weight loss from 74 to 71 pounds. The patients is said by the mother never to have been physically strong or rugged, having suffered more or less severely from all childhood diseases, and having always "bruised easily." Family history was noncontributory for blood dyscrasias, etc. The significant physical findings on admission were: temperature 100°F., pulse 88, respirations 24, blood pressure systolic 114, diastolic 60; pallor of skin and mucous membranes with numerous petechial hemorrhages scattered over chest, abdomen, back and extremities, and large ecchymotic areas over right arm and shoulder and in right and left antecubital fossæ; the gums were red, retracted, and oozing blood at several points; tonsils hypertrophic but not grossly infected, with moderately enlarged, discrete, nontender cervical nodes bilaterally, and in the left axilla; *the spleen was readily palpable on deep inspiration at the left costal margin* without hepatomegaly. Laboratory data: total white blood cells 3400-5100; total red blood cells 3,060,000 to 3,250,000; hematocrit 33 per cent; hemoglobin 11 gms./100 c.c.; reticulocytes 6.8 per cent to 9.2 per cent; *blood platelets 6400 to 32,000 per cu. mm.* (normal 700,000); corrected erythrocyte sedimentation rate 0.3 mm./min. (normal); erythrocyte fragility range .412-.300; icterus index 5; prothrombin 60 per cent; representative supravital differential, white blood cells, neutrophils 56 per cent, eosinophils 4 per cent, lymphocytes 34 per cent, monocytes 6 per cent without significant qualitative abnormalities; bleeding time 6½ minutes, Howell's coagulation time 10 minutes with delayed clot retraction; hippuric acid 3.7; urinalysis essentially physiologic; serology negative. The *sternal bone marrow* on May 8 was grossly hyperplastic with red rather than gray tissue flecks; microscopically by actual count the RBC:WBC ratio was 5:1; normoblasts predominated with frequent mitotic figures observed in the few erythroblasts and occasional megaloblasts present; the myeloid elements were largely neutrophilic and at the myelocyte C or relatively mature stage with a few eosinophils; the megakaryocytes appeared to be increased both relatively and in absolute number (as many as three being found in one oil immersion field) and were seen in every stage of maturity from young, large mononuclear megakaryocytoblasts through intermediate to large, typical, mature granular magakaryocytes; only one plasma cell, an extremely rare phagocy-

tic macrophage, and no monocytes or other cells foreign to normal bone marrow were encountered. *Interpretation,* generalized pan-marrow hyperplasia of all normal cell types, with a significant left shift only in megakaryocytes, without evidence of toxic destruction or maturational arrest, therefore, a reflection of excessive peripheral demands for *all* types of circulating elements. The *adrenalin test* on May 9 showed a maximum rise in total white blood cells from the base line of 3450 to 7100 at the end of 15 and 50 minutes; red blood cells from 3,250,000 to 4,100,000 at the end of 50 min., and hemoglobin 11 gms. to 12 gms.; the platelets fluctuated between 32,500 and 14,000, the lower figures being recorded during the test.

Both the granulopenic leukopenia and splenomegaly, proven by direct and indirect evidence, are incompatible with a simple diagnosis of essential thrombocytopenic purpura. In no other instance of uncomplicated splenic purpura in our experience to date has the spleen been clinically palpable or at operation been found to be enlarged. The evidence seemed to justify the preoperative diagnosis of thrombocytopenic purpura *and* granulocytopenic leukopenia, both attributable to splenic hypersequestration with compensatory marrow hyperplasia including the red cells secondary to purpuric hemorrhages.

Following parenteral vitamin K and a blood transfusion of 200 c.c. to control hemostasis, splenectomy was accordingly successfully accomplished on May 13. The temperature rose no higher postoperatively than the pre-operative base line of between 100 and 101°F, and became normal for the first time in four months on the fifth postoperative day. On the day of operation the total white cells rose from 3900 with 74 per cent neutrophils at 9:00 a.m. to 44,400 with 96 per cent neutrophils by 3:45 p.m., the spleen having been removed about 11:00 a.m.; the red blood cells increased from 4,090,000 to 5,200,000; and the blood platelets from 16,400 to 165,580. The following day the platelets were 509,000 per cu. mm. and by the seventh postoperative day had risen to 2,616,000 per cu. mm. Under adrenalin stimulation after exposure, the spleen contracted to approximately one-third of its gross size as first observed before the pedicle was clamped, and when removed, measured 4½x3½x2¼ inches and weighed 205 grams. Immediate supravital studies of the splenic parenchyma revealed a most striking abnormal segregation of polymorphonuclear neutrophils, an occasional myelocyte C and eosinophilic granulocyte, and from 1 to 3 very large, highly phagocytic macrophages per oil immersion field containing many myeloid elements, fewer red blood cells, and much smaller material which could be interpreted as platelet débris. There were the usual number of qualitatively normal lymphocytes; no increased fibrosis and no other pathologic cells or tissue changes were apparent. The patient was discharged on the fourteenth postoperative day in normal hematopoietic and clinical equilibrium and when last seen, June 18, 1941, she had 13,600 white blood cells, 4,270,000 red blood cells, hematocrit 41 per cent, 13 gms. of hemoglobin, 832,000 blood platelets, 65 per cent neutrophils, 7 per cent eosinophils, 21 per cent lymphocytes, 7 per cent monocytes.

Other instances superficially typical, in so far as the peripheral blood deficiencies were concerned, of aplastic anemia have been studied similarly and the bone marrow found to be hyperplastic, with splenectomy specifically remedial of signs and symptoms. Blood transfusions have only limited usefulness in such cases and an increasingly careful diagnostic analysis I believe will result in the recognition of increasing numbers of such patients for whom complete clinical arrestment may be provided.

### The R-E System and Humoral Immunity

In addition to the observations of selective phagocytic activity on the part of the reticulo-endothelial cells, a great many investigations have been undertaken in the attempt to demonstrate a direct relationship between this cellular system and humoral immunity. Reticulo-endothelial cell blockade with carbon particles or various vital dyes, or extirpation of the spleen, or both, have preceded the administration of a variety of antigens, with the variation in antibody titers, subsequently developed, used to measure the specific sensitivity of the tissue response. Most of the evidence thus accumulated has seemed to indicate the existence of an intimate relationship between the integrity of the reticulo-endothelial system and antibody formation.

For example, when foreign erythrocytes are injected into an animal for the first time they are promptly removed and destroyed by the macrophages of the R-E system; when red blood cells from the same source are again injected after a suitable interval, intravascular, extracellular hemolysis occurs through the action of circulating hemolysins. That the cellular elements originally responsible for the elimination of the foreign red blood cells by phagocytosis should be the most likely source of the newly developed hemolysins is a reasonable assumption. In support of this hypothesis is the almost complete agreement that hemolysin production is interfered with to a greater or less degree by reticulo-endothelial blockade.[2]

Most convincing, however, have been the more

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recent experimental studies utilizing the synthetic chemists' ability to unite certain dyes with proteins to form "marked antigens" capable of being traced visually when introduced into the animal body or into tissue cultures. Sabin[21] took the alum precipitate of Heidelberger's R-salt-azo-benzidine-azo-egg albumen, whose readily visible purplish-red particles had been proved to be of superior antigenic potency,[14] and followed its physical disposition via various avenues of injection in rabbits. The antigen was observed to be quickly phagocytized by typical cells of the R-E system and to slowly undergo changes characteristic of molecular disintegration within vacuoles of segregation. During the third to seventh days increasing vacuolization of the peripheral cytoplasmic zone of the enlarging macrophages was noted with progressive fragmentation and lysis of bits of cytoplasm coincident with the beginning demonstration of specific circulating antibodies. These cellular studies were made with supravital preparations of excised tissues, chiefly the omentum after intraperitoneal injections of the dye antigen.

It seemed desirable to augment these studies of Sabin by the inoculation of tissue cultures of macrophages with the same antigen, there to study and record cinematographically in color from hour to hour and from day to day the fate of this "marked protein," and to attempt to correlate even more certainly the appearance of specific anti-bodies with the observed cytologic phenomena. For the past two years Dr. Ben C. Houghton has been making such observations in this laboratory, employing explanted bits of rabbit spleen as the original source for tissue macrophages, and using the same azo dye antigen generously furnished by Dr. Michael Heidelberger from his laboratory at the College of Physicians and Surgeons, New York City. Data and information obtainable in no other way and through no other medium have now become available to fill in the vital gaps in our chain of evidence linking the R-E phagocytes with specific globulin antibody formation. The details of Sabin's original observations and of this supplemental cinematographic record make fascinating reading and study, but it is possible here to give only the summary of the interpretations which would seem to be wholly justified on the basis of the accumulated evidence: the phagocytic endothelium, both vascular and lymphatic, as well as the free macrophages of the tissues everywhere, are constantly phagocytizing foreign materials which may be divided into two general groups, antigens and nonantigens. These substances are first segregated into the vacuolar organs of digestion of the cell and prepared for diffusion into the cytoplasmic zone of synthesis; the normal food substances ingested are utilized in the formation of normal globulin, but foreign antigenic proteins increase and modify this synthesis of globulin, so that with the shedding of parts of the surface films of such cells, both normal and antibody globulins are carried into the blood plasma. This conforms with the observation of a concomitant increase in both under such circumstances. These cells, during the period in which the modified globulin remains within the cytoplasm, react differently from the normal cell in the presence of additional original antigen, thus relating "sensitization" and "immunization" to different phases of the same mechanism.

The variation in species and individual response to various antigenic substances is readily explained by Sabin's observations. Two distinct steps are necessary for the development of antibodies; first, the phagocytosis and intravacuolar preparation of the antigen for introduction into the cytoplasm proper; and, second, the synthesis of new and modified globulins. Both these phases require time, which would naturally vary with the quantity of antigen available, its relative ease of degradation, and its ability to modify normal globulin synthesis. Furthermore, the units which comprise this phagocytic defense system of the mammalian organism are as diversified in origin and definitive type, and probably, therefore, in functional specificity and efficiency, as are the several units of a modern army-granulocytes, monocytes, clasmatocytes, endothelial phagocytes, specialized as in the Kupffer cell and nonspecialized as in the lining cells of the lymph sinuses; and it is probable that each responds differently, quantitatively if not qualitatively, to different antigens and under different environmental circumstances. The various chemotherapeutic agents either assist or prevent clinical recovery in infectious diseases to the extent that they aid or hinder this important cellular mechanism of the body in its

**phagocytic and antibody-forming functions plus any direct effect they may have on limiting the multiplication of pathogenic bacteria.**

These recent studies mark an enormous advance in our understanding of the essential mechanism of natural and acquired immunity, yet represent but a logical consummation and final unique demonstration of an hypothesis supported by the gradually accumulated experience of many years

### Summary

The reticulo-endothelial system of highly phagocytic cells performs certain vital physiologic protective and conservational functions including phagocytosis of senile or damaged red blood cells, bacteria and foreign bodies. Under certain hereditary and environmental circumstances the phagocytic activity of these cells may become accentuated to a pathologic degree resulting in several disease syndromes frequently mis-diagnosed as dependent upon a primary bone marrow rather than a splenic mechanism. Such instances, when properly recognized, may be permanently corrected by successful splenectomy. The probable physiologic contribution of the R-E cells to normal globulin formation may be altered by the ingestion of "foreign" antigenic proteins with the elaboration of specific globulin antibodies.

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# Some Uses of Chemotherapy in Ophthalmology*

**By Parker Heath, M.D.**
**Detroit, Michigan**

PARKER HEATH, M.D.
*M.D., University of Michigan Medical School, 1918. Chief of Eye Department, Harper Hospital. Professor of Ophthalmology, Wayne University. Member, Academy of Ophthalmology, American Ophthalmological Society, Michigan State Medical Society.*

■ BECAUSE of the rapid development of chemotherapeutic agents one is apt to feel that they are a new approach to the problems of treating disease. But the treatment of infectious diseases by chemical compounds goes back many decades. Medicine has long looked and found some chemical compounds which are bactericidal or bacteriostatic in relatively high dilutions which are devoid of marked local irritative effects or general harmful reaction on the human body. The arsenic and bismuth compounds in the treatment of syphilis are a great achievement for medicine. Recent development of chemotherapeutic agents has been so rapid that it is difficult to keep accurately informed. As is usual, too many inade-

*Address delivered before Seventy-Sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1941.

quately tested compounds are offered to the practitioner under pressure of considerable recommendation. The physician knows, however, that a conservative and cautious attitude is essential in scientific medicine, especially relating to therapeutic agents.

Hematuria, anuria with azotemia and rarely agranulocytic angina have been reported with some of these drugs. Congestion of the sclera and conjunctiva have been reported following sulfathiazole. Other ocular and auditory disturbances are rare. Transitory myopia has been reported associated with the use of some of these drugs. When used intravenously, they should be given slowly with considerable salt solution. The state of the pharmacology of these compounds leaves much to be desired. The clinical reports are often most brilliant.

There are certain precautions necessary in the use of these compounds. Substantial fluid intake, or forced fluids, are usually indicated. Many find benefits in the increased use of milk, egg and chocolate drinks; others are relieved by the use of bicarbonate of soda, the same dosage as that of the chemical used. Few reactions occur from the use of sulfadiazine. Patients under sulfonamide treatment should not be allowed to roam around at will without supervision. They should not carry on their usual occupation, particularly if it pertains to driving a motor vehicle. Differential count and blood levels the first day and daily, or every two days thereafter, including hemoglobin estimation and urinalysis, are indicated.

**Sulfanilamide, sulfapyridine, sulfathiazole and sulfadiazine have a demonstrated clinical value. These substances call for an expanding use by the ophthalmologist. It is important to remember that other established therapeutic agencies need not be discarded nor neglected with the use of the substances above. Also, some patients are hypersensitive to the compounds named above and require other forms of treatment.**

The methods by which these substances work are not known clearly. Their point of attack is obscure. Information is accumulating, however, from experimental studies; and the trend now seems to be that these substances inhibit growth or multiplication, rather than being immediately lethal to the organisms. Some studies indicate that sulfathiazole is not held in sufficient concentration in the deep intraocular fluids to be very effective, whereas sulfanilamide and sulfapyridine may reach these areas in effective doses. Sulfathiazole, however, does concentrate effectively in the sclera, apparently, and also in the uveal tract in practical doses, as well as having a decided effect on some conjunctival diseases.

*Inclusion Blennorrhea.*—Treatment, oral; dosage, sulfathiazole ⅓ grain per pound daily in divided doses. This dosage is continued for three to four days and may be stopped after the fourth to seventh day. Local treatment consists of antiseptic washes and the use of 5.0 per cent sulfathiazole ointment.

*Gonorrheal Ophthalmia or Gonorrheal Conjunctivitis.*—Effectively treated with oral dosage of sulfapyridine, sulfadiazine, sulfathiazole or sulfanilamide; dosage, oral, 3 to 4 grams for an adult, subsequent dosage one gram every four hours; child, ⅓ grain daily per pound of body weight in divided doses. The initial doses may be larger than the subsequent doses to hasten the effect. Local treatment is in order, such as ice compresses, antiseptic irrigations and sulfrapyridine ointment 5.0 per cent several times a day, atropine if indicated, conjunctival flap if indicated due to ulceration and imminent perforation. The local use of the powdered drug has been used with success by some.

*Staphylococcus Hemolytic Conjunctivitis.*—Local treatment with 5.0 per cent sulfadiazine or sulfathiazole ointment form in connection with zephiran 1:2500 each four or five times a day have been very helpful in those cases failing to respond to staphylococcus toxoid.

*Pneumococcus Conjunctivitis and Keratitis with Ulcer.*—Sulfapyridine or sulfadiazole; initial dose 2 to 4 grams by mouth, followed by one gram every four hours around the clock; local application of 5.0 per cent ointment of either of the above; cautery and atropine and foreign protein, typhoid para-typhoid shocks, are of course of great value. The powdered pure sulfa drugs dusted on the cornea help in some cases. Paracentesis, delimiting keratectomy, are of value when indicated.

*Uveitis.*—Acute uveitis in some cases is helped by the oral administration of sulfa drugs. Their indiscriminate use is to be avoided, and of the four principal drugs sulfapyridine has proven most effective, sulfathiazole least effective, sulfadiazole about as effective as sulfapyridine.

*Orbital Abscess.*—Best treated with sulfapyridine, sulfadiazine, or sulfathiazole; initial dosage 2 to 4 grams, with one gram every four hours around the clock for adults, reduced proportionately for children. Other measures, of course, such as limited use of hot, moist dressings and drainage, must be considered.

*Iritis.*—In a moderate degree of iritis the method of hastening recovery by sulfathiazole or sulfadiazine is sometimes added; initial dose 3 grams followed by one gram around the clock every four hours.

*Iridocyclitis and Choroiditis.*—Similarly influenced by the medicaments used in the iritis above, but recurrence and return of symptoms follow incomplete dosage.

*Blepharitis.*—Blepharitis and that form of punctate keratitis associated with chronic conjunctivitis, especially staphylococcus; also sometimes cured by the use of sulfathiazole or sulfadiazine 5.0 per cent ointment.

*Dendritic Keratitis.*—The local use of the powdered form of the drug or the 5.0 per cent ointment has been of uneven value, also 0.5 per cent sulfanilamide irrigations have proved of doubtful value.

*Trachoma.*—Treated by sulfanilamide, oral dosage, 2 grams, and one gram every four hours in a period of a week to ten days; or sulfapyridine or sulfadiazine may be used. Mixed reports are coming in on the value of this treatment in trachoma. It seems definitely established that secondary infections are reduced, and in the hands of the majority marked improvement from the disease is noted.

*The Special Ulcer of the Cornea Due to Pyocyaneus.*—This condition should be treated (a matter of hours) with sulfapyridine or sulfadiazine; initial dose 4 grams, followed by 2 grams secondary dose in 2 hours and one gram every four hours thereafter around the clock, continued for a week or ten days.

*Late Trephine Infection, Endophthalmitis.*—This may be arrested and the process stopped by the use of sulfapyridine or sulfadiazine; initial oral dose, 4 to 6 grams, followed by 2 grams the second hour, one gram every four hours around the clock. A cyclitic cataract may develop in such a profound inflammation and toxic state, and the lens in turn may require removal if any increase in tension develops and other treatments fail.

*Postoperative Infection following Intraocular Surgery.*—Postoperative infection is usually manifest by the third day. In addition to foreign proteins the sulfonamide drugs are valuable; initial dose, sulfapyridine or sulfadiazine 4 to 6 grams, followed in two hours by one gram and every four hours a gram dosage around the clock.

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# Chemotherapy in Infectious Diseases*

**By Chester S. Keefer, M.D.**
**Boston, Massachusetts**

CHESTER S. KEEFER, M.D.

*M.D., Johns Hopkins University School of Medicine, 1922; Director, Evans Memorial, Massachusetts Memorial Hospitals; Wade Professor of Medicine, Boston University School of Medicine; Diplomate, American Board of Internal Medicine.*

■ THERE is no denying the fact that the treatment of infectious diseases has been revolutionized during the last six years. This has been due in large part to the introduction of the various sulfonamides. I propose to discuss the present status of chemotherapy in the treatment of five

*From the Evans Memorial, Massachusetts Memorial Hospitals, and the Department of Medicine, Boston University School of Medicine, Boston. Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 18, 1941.

groups of infections, namely meningitis, pneumonia, wound infections, urinary-tract infections, and gastro-intestinal infections. The relative merits of the various sulfonamides and the toxicity of the various compounds will be briefly covered.

### Bacterial Meningitis

The treatment of bacterial meningitis has been completely changed during the last few years. Some types of the disease which were invariably fatal before the days of sulfonamide therapy may now be treated with reasonable success. It is well to discuss each type of meningitis separately, since the treatment varies somewhat with the type of bacteria concerned.

#### *Meningococcol Meningitis*

Except for tubercular meningitis, this is the commonest type of bacterial meningitis. It occurs in both epidemic and sporadic forms, and is most often observed under the age of five and in adults who work and live under conditions of close contact. Miners and soldiers are commonly exposed, and epidemics among such groups are common. The infection is spread from the nasopharynx by carriers, or by those with the disease. Frequently, the infection is preceded by a head cold. The meninges are infected either by direct extension along the perineural sheaths of the olfactory nerve or by the hematogenous route. The blood cultures are commonly positive early in the course of the disease, especially in young individuals.

**The treatment of choice is chemotherapy, and all the published reports indicate that sulfanilamide, sulfapyridine, sulfathiazole, and sulfadiazine are all effective. These compounds are usually given by mouth, but the sodium salts of the last three have been used intravenously in some cases, with excellent results.**

**It is not necessary to give any of these drugs intrathecally in the treatment of meningococcal infections.**

#### *Summary of Treatment of Meningococcal Meningitis*

1. Blood should be obtained for culture.
2. Lumbar puncture should be done to establish the diagnosis and relieve increased intracranial pressure.
3. Four grams of sulfadiazine should be given during the first four hours, followed by one every four hours until there is complete symptomatic recovery. In favorable cases this usually requires five or six days.
4. If the patient is unable to take the drug by mouth it should be given in the same doses as sodium sulfadiazine in physiological solution of sodium chloride intravenously.
5. Enough fluid should be given so that the daily excretion of urine is 1,500 c.c.
6. Lumbar puncture should be done only for diagnosis, and repeated only to relieve the symptoms and signs of increased intracranial pressure or in case there is a failure of response to treatment.
7. It is desirable to maintain the blood level of free sulfadiazine at between 5 and 10 mgs. per 100 c.c.

#### *Pneumococcal Meningitis*

This is a disease which presents many difficulties in treatment, but encouraging results have been obtained during the past few years with combined specific serum and chemotherapy. The treatment of choice may be outlined as follows:

#### *Summary of Treatment of Pneumococcal Meningitis*

A. Diagnostic Procedures on All Patients

1. Blood culture.
2. Spinal fluid culture with the identification of the type of organism.
3. Examination of the ears, mastoid, and sinuses for foci of infection.

B. Therapeutic Procedures

1. Type-specific anti-pneumococcic rabbit serum (250,000 units) should be given intravenously until a positive balance of antibody is obtained (positive Sabin or Neufeld test on patient's serum).
2. Sulfapyridine or sulfadiazine should be given by mouth, 8 gm. per day. The cerebrospinal fluid should be maintained at a level of at least 8 mg. per 100 c.c.
3. Lumbar puncture should be performed at least once a day, or more often if signs of pressure develop.
4. Sulfapyridine sodium, 5 to 8 gm. per day, should be given intravenously if the patient is stuporous and cannot take the drug by mouth.

5. Surgical drainage of the focus of infection should be done if one is discovered.

**With this treatment the fatality rate is now in the neighborhood of 30 to 50 per cent instead of 98 to 100 per cent.**

The poorest results are obtained when the meningitis follows pneumonia, the failure in these cases being due to the fact that at least 50 per cent of the cases are associated with endocarditis, and that in the other cases the meningitis is only a part of a more widespread pneumococcal infection. The best results are obtained when no obvious focus of infection is present and the patient lives long enough for adequate treatment with serum and sulfonamides.

*Hemolytic Streptococcal Meningitis*

Until recently this was almost invariably a fatal disease, but now the fatality rate is in the neighborhood of 20 per cent. The salient features concerning this disease have been summarized elsewhere,[4] but the following points are well worth remembering.

1. This disease is seen most often under the age of two years and between the ages of five and twenty.

2. The commonest source of infection is in the middle ear. Less commonly infection occurs following sinus infections, skull fractures, or operations on the brain.

3. Bacteremia is common, especially when there is an associated lateral sinus thrombosis or bacterial endocarditis. Hematogenous infection of the meninges by this organism is infrequent.

4. Factors influencing recovery are the age of the patient, accessibility of the focus of infection for drainage, and chemotherapy.

*Summary of Treatment of Hemolytic Streptococcal Meningitis*

A. Diagnostic Procedures

1. Lumbar puncture on all patients.
2. Blood culture.
3. Examination of ears, mastoid, and paranasal sinuses for portal of entry.

B. Therapeutic Procedures

1. Sulfanilamide or sulfadiazine by mouth, 8 gm. per day.
2. Lumbar puncture for diagnosis, and then once every twenty-four hours until the fluid is sterile. If the symptoms of increased intracranial pressure are present, it should be done more often.
3. Surgical drainage of foci of infection, usually in the mastoid or lateral sinus, less often in the frontal or ethmoid sinus.
4. Repeated blood transfusions for anemia.
5. It may be necessary to continue active treatment for three to six weeks or longer.

*Influenza Bacillus Meningitis*

This type of meningitis is of special interest to pediatricians since 85 per cent of all the cases occur under the age of three. Moreover, it is one of the commonest causes of sporadic cases of meningitis, and may be confused with meningococcal meningitis. Prior to the introduction of the sulfonamides and specific serum, this disease was almost invariably fatal. Now, with the combined use of sulfanilamide and specific serum, the fatality rate has been reduced to about 50 per cent. The treatment as recommended by Alexander [1] would appear to be the most adequate one for the present. It may be summarized as follows.

*Summary of Treatment of Influenza Bacillus Meningitis*

A. Diagnostic Procedures

1. Blood culture.
2. Spinal fluid culture and smears.
3. Lumbar puncture at least every twenty-four hours.

B. Therapeutic Procedures

1. Specific antiserum (rabbit) until the blood is cleared and there is a positive balance of antibody in the circulating blood. Usually at least 100 mg. of antibody nitrogen is required for the initial dose.
2. Sulfapyridine by mouth so that the level is at least 8 mg. per 100 c.c. in the spinal fluid; that is, 2 gm. per day for small children and 4 gm. per day for older children. This should be continued until the spinal fluid is sterile.
3. Supportive treatment such as maintaining nutrition and preventing anemia is important.

The treatment recommended by Alexander for infants and children may be summarized as follows:

1. One-tenth gram of sulfanilamide per kilo-

gram of body weight is given by intravenous drip as soon as the diagnosis is made. This is followed by 0.1 gm. per kilogram in 40 c.c. of Ringer's solution every four hours.

2. Fluids are forced for at least three hours before serum is administered.

3. Twenty-five milligrams of antibody nitrogen is given intravenously and 75 mg. is diluted in 200 to 300 c.c. of Ringer's solution and given by intravenous drip over a two-hour period.

4. Lumbar punctures are performed daily and serum is discontinued if the spinal fluid is sterile, the sugar and chlorides are rising, and the protein and cell count are falling, and the concentration of 1:10 dilution of the patient's serum produces capsular swelling.

## Pneumonia

### *Pneumococcal Pneumonia*

There are three chemotherapeutic agents which are equally effective in pneumococcal pneumonia: sulfapyridine, sulfathiazole, and sulfadiazine. They all decrease the fatality rate, shorten the course of the disease, and reduce the number of complications. Of the three compounds, sulfadiazine causes the least toxic effects. There are fewer cases of hematuria, less nausea and vomiting, dermatitis, and drug fever. Anemia and leukopenia are infrequent, and whereas renal colic and anuria may occur they are less common than following the use of sulfathiazole or sulfapyridine. In short, in the treatment of pneumococcal pneumonia, sulfadiazine would seem to be the drug of choice for the present. The reasons for selecting it in preference to sulfapyridine or sulfathiazole are therefore twofold: it is as effective, and it produces fewer toxic effects.

The dosage is the same as that of the other sulfonamides; for example, 6 gm. a day until the temperature remains normal for at least two days. Sodium sulfadiazine may be used when patients fail to tolerate the drug by mouth.

### *Hemolytic Streptococcal Pneumonia*

The two drugs which have had a clinical trial in hemolytic streptococcal pneumonia are sulfanilamide and sulfadiazine. From the available evidence it would appear that sulfadiazine is more effective and less toxic than sulfanilamide. There are substantial reasons for believing that the fatality rate in hemolytic streptococcal pneumonia and empyema may be appreciably reduced following chemotherapy and that the course of the disease may, in many cases, be shortened. So far, the evidence is not convincing that the incidence of empyema following hemolytic streptococcal infection of the lungs is reduced by chemotherapy. An increasing number of cases of empyema have been recorded in which recovery occurred following multiple aspiration of the chest and chemotherapy. In the majority of cases, however, it is necessary sooner or later to establish free drainage in order to effect a cure.

### *Staphylococcus Aureus Pneumonia*

This type of pneumonia is relatively uncommon, but during the past year, following the epidemic of influenza which was prevalent in Boston, a number of cases were observed.[3] Many of these patients developed an extensive bronchopneumonia with abscess formation and empyema. Finland reported that recovery followed chemotherapy in a number of cases and that improvement was prompt and recovery complete. In a few, the illness was prolonged, especially when there was evidence of abscess formation and localized pleural effusion. In some cases, the original pleural fluid was sterile and remained so; in others it soon became infected with staphylococci. Here again there were some cases in which recovery from empyema followed completely after repeated aspirations and chemotherapy; in others surgical drainage of the pleural cavity was necessary before recovery followed. It would appear that either sulfadiazine or sulfathiazole should be used in Staphylococcus aureus pneumonia, since they are both effective in some degree in the treatment of S. aureus infections in general.

### *Friedländer's Bacillus Pneumonia*

Pneumonias due to this organism are usually serious infections, and while chemotherapy has been used in a number of them, the evidence is slight that any of the sulfonamides except sulfadiazine shorten the course of the disease. Perhaps the combined use of serum and chemotherapy in this type of pneumonia will produce better results.[10]

**In summing up the treatment of pneumonia with chemotherapeutic agents it would appear at the present time that sulfadiazine is the most effective of all the sulfonamides in the treatment of pneumococcal, hemolytic strep-**

**tococcal, Staphylococcus aureus, and Friedländer's bacillus pneumonia. The most striking results are obtained in the treatment of pneumococcal pneumonia.**

### Wound Infections

The first consideration in the treatment of any wound infection is to determine the causative organism, the common ones being the hemolytic streptococcus, Staphylococcus aureus, Clostridium welchii, and the micro-aerophilic hemolytic streptococci. In a number of cases, however, there may be secondary contaminants of the proteus of pyocyaneous group or B. coli. There has been great interest in the treatment of wound infections, especially among soldiers and sailors as well as civilians in countries at war. Studies have been carried out along two different lines: first, chemoprophylaxis; and second, chemotherapy.

In regard to chemoprophylaxis, powdered sulfanilamide has been placed directly in the wound and given by mouth. When this procedure is adopted soon after an individual has been wounded, the incidence as well as the severity of the local infection seems to be reduced. Once infection has become established in a wound, however, there seems to be no valid evidence that chemotherapy applied locally accelerates the healing of wounds. This, however, is a matter which requires additional study and investigation.

It has been shown by Colonel Colebrook[2] of the British Army that many wounds which showed delayed healing were infected with hemolytic streptococci. Sulfanilamide treatment of these wounds has been of great value in promotion of healing.

**Gas-bacillus infections seem to be best handled by excision of all necrotic tissue, the use of sulfanilamide locally and by mouth, and the injection of antitoxin. One cannot state as yet whether these forms of treatment will greatly reduce the fatality rate in true gas-bacillus gangrene. The micro-aerophilic hemolytic streptococcal infections are best treated by the local application of zinc peroxide paste as recommended by Meleney.[9] Many of them require in addition sulfanilamide by mouth.**

One may sum up the treatment of wound infections with the sulfonamides by saying that they have been used to best advantage as a prophylactic in war wounds. They are also of value when applied locally and given by mouth in patients with active infection of wounds. The use of antitoxin and sulfonamides continues to remain the treatment of choice in gas-bacillus infections. Zinc peroxide paste with sulfanilamide is the best method for the treatment of micro-aerophilic hemolytic streptococcal infections.

### Gastro-intestinal Infections

The greatest advance in the treatment of gastro-intestinal infections has been the development and use of sulfaguanidine in the treatment of bacillary dysentery. This drug can be given in large amounts and is not readily absorbed from the gastro-intestinal tract. Its concentration, therefore, remains high in the tract, and in this way it inhibits the growth of pathogenic dysentery bacilli. Studies of Marshall et al.[7,8] and Lyons[6] indicate that the duration of the fever is shortened and the signs of intoxication and the number of stools are reduced within a few days after the exhibition of sulfaguanidine, and on the whole the disease is shortened by the use of this drug. It has been of little value in the treatment of chronic ulcerative colitis of unknown etiology and the results of its use as a prophylactic against peritonitis in resections of the large bowel have been disappointing.

There are isolated cases on record in which carriers of typhoid bacilli have been sterilized following the use of sulfaguanidine by mouth.[5]

**The greatest field of application of sulfaguanidine at present appears to be in the treatment of acute bacillary dysentery. There is no evidence now available which indicates its value in the treatment of typhoid fever; however, since typhoid fever is a disease in which there is a wide dissemination of organisms throughout the body, it is doubtful whether sulfaguanidine would have a highly beneficial effect, since very little of it is absorbed. It may be that the combination of sulfaguanidine and one of the other more soluble sulfonamide drugs such as sulfadiazine may be an effective method of treatment.**

TABLE I. FREQUENCY OF TOXIC REACTIONS FOLLOWING VARIOUS SULFONAMIDES

| Toxic Reactions | Sulfanilamide | Sulfapyridine | Sulfathiazole | Sulfanilylguanidine | Sulfadiazine |
|---|---|---|---|---|---|
| Nausea and/or vomiting | 10–20% | 40–55% | 23–40% | 2–5% | 5–9% |
| Mental disturbances including toxic psychosis | 5–10% | 0.3–5% | 0–2% | None | 0 |
| Skin eruption | 2–5% | 4–5% | 8–10% | Occasional | 2-3% |
| Fever | 10% | 2–5% | 5–6% | Occasional | 1% |
| Conjunctivitis | | | 4% | | |
| Anemia | 1–2% | 2–3% | Very rare | Not reported | Not described |
| Hyperleukocytosis | With acute hemolytic anemia | | | Not reported | Not described |
| Leukopenia | 0.1% | 0.1–0.5% | Rare | Not reported | 2% |
| Hematuria | 0 | 2–3% | 2–3% | | 0.5–1% |
| Oliguria | 0 | 0.1–0.5% | 0.5–1% | | 0.5–1% |
| Anuria with nitrogen retention | 0 | | 0.5–1% | | 0.5–1% |
| Jaundice | Rare | | Rare | | |
| Hepatitis | Rare | | Rare | | |
| Miscellaneous rare side effects: | | | | | |
| Purpura hemorrhagica | Rare | Rare | | Not | Not |
| Gastro-intestinal bleeding | Occasional | Occasional | | | |
| Stomatitis | Rare | Rare | | reported | reported |
| Painful joints | | | Rare | | |
| Neuritis | | | | | |

## Urinary-Tract Infections

It is now generally recognized that infections of the urinary tract due to the colon bacillus, B. proteus, B. influenzæ, B. dysenteriæ, and Staphylococcus aureus, are favorably influenced by the use of chemotherapeutic agents. Either sulfathiazole or sulfadiazine is effective in the treatment of these various infections, but in all of them it is extremely important to determine whether or not there is an anatomical lesion in the genito-urinary tract which is causing obstruction.

## Discussion

### *The Choice of the Sulfonamides in Treatment*

In choosing one of the sulfonamides for treatment it is wise to select the one that will be most effective for a given infection and will cause the fewest signs of intoxication. From the evidence at present there seems to be little doubt that sulfadiazine has a broader base and causes fewer signs of intoxication than has either sulfapyridine or sulfathiazole. This is especially true in hemolytic streptococcal, pneumococcal, staphylococcal, and meningococcal infections. In bacillary dysentery, sulfaguanidine is the most effective sulfonamide in the treatment of both the acute disease and in the carriers of the responsible organism.

Specific serum and chemotherapy should be used in treating all cases of pneumococcus and B. influenzæ meningitis. It should also be used in some cases of pneumococcal pneumonia.

### *The Toxic Effects of the Sulfonamides*

Every physician who uses the sulfonamide drugs knows that certain side effects are common. The most important ones, summarized in Table I, are those involving the hematopoietic organs and urinary tract. It is essential, therefore, to follow the blood and urine in all patients who are receiving these drugs.

## Summary and Conclusions

The methods of treatment are outlined which are in common use in the treatment of various

infections frequent in medical practice. From the evidence available at present it would appear that sulfadiazine is the drug of choice in the treatment of most of the common infections which respond to the sulfonamide drugs. It is effective and causes fewer signs of toxicity than do the other sulfonamides.

Sulfaguanidine is the drug of choice in the treatment of bacillary dysentery and carriers of Shigella dysenteriæ.

Specific serum and chemotherapy should be used in cases of pneumococcus and B. influenzæ meningitis.

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# Arthritis—A Curable Disease?*


By Russell L. Cecil, M.D.
New York City

RUSSELL L. CECIL, M.D.

*B.A., Princeton University, 1902; M.D. Medical College of Virginia, 1906; Sc.D., Medical College of Virginia, 1928. Entered Army in June, 1917; served as Director of Laboratories at Camp Upton, N. Y., and Camp Wheeler, Georgia; served at Army Medical School and appointed Head of Commission for Study of Pneumonia by Surgeon General, 1917 to 1919. He is now Professor of Clinical Medicine, Cornell University Medical School; Professor of Medicine, Polyclinic Medical School and Hospital; he also holds several other important appointments. Doctor Cecil has published several works on the subjects of pneumonia, arthritis and rheumatism.*

There is an ancient saying in medicine which reads that "Once an arthritic, always an arthritic." This generalization, however, is not entirely accurate. In the first place, arthritis is merely a name for a group of diseases, some of which are much more severe and intractable to treatment than others. For example, the arthritis which we occasionally see as a complication of gonococcal or meningococcal infections, is very quickly cured by modern chemotherapy. The arthritis of rheumatic fever yields promptly to salicylates, and now we are finding that this disease can actually be prevented by small daily doses of one of the sulfonamide drugs. On the other hand, rheumatoid or deforming arthritis is one of our most difficult therapeutic problems. Osteo-arthritis can be very much helped symptomatically, but the bony changes persist in spite of all therapy. It is obvious, therefore, that the question which we have propounded in the title of this paper, namely, Is arthritis a curable disease? necessitates a qualified answer. Arthritis is curable and incurable, depending, as the case may be, on many factors such as etiology, age and temperament of the patient, and many environmental factors, such as climate, financial status, facilities for treatment, et cetera.

Arthritis has been classified in various ways, but recently the Committee on Classification of the American Rheumatism Association has composed a comparatively simple one, which I submit below. This classification has not yet been finally accepted, but it is quite likely that it will be endorsed, with possibly minor modifications.

*Address delivered before the Michigan State Medical Society, Grand Rapids, Michigan, September 17, 1941.

**Classification of Diseases Involving the Joints**

I. Arthritis associated with specific infection.
II. Arthritis of rheumatic fever.
III. Rheumatoid arthritis (atrophic arthritis, chronic infectious arthritis, proliferative arthritis), including juvenile type (Still's disease) and ankylosing spondylitis (Marie-Strümpell).
IV. Degenerative joint disease (degenerative arthritis, osteo-arthritis, hypertrophic arthritis, senescent arthritis).
V. Arthritis of immediate traumatic origin.
VI. Arthritis of gout.
VII. Arthritis of neuropathic origin (Charcot's joint).
VIII. Neoplasms of joints.
IX. Miscellaneous forms.

I. *Arthritis Associated with Specific Infection.*—Almost any pathogenic organism can be the cause of an infectious arthritis. Many of them, such as the pneumococcus or the hemolytic streptococcus, are likely to set up acute suppuration in the joint. Others, such as the tubercle bacillus and the Treponema pallidum, produce chronic inflammatory changes. Meningococcus and gonococcus arthritis are readily controlled by sulfathiazole or some other sulfonamide agent. If this fails, the drug should be supplemented by fever therapy. The real surgical joints are usually treated by arthrotomy and drainage. Luetic joints present more difficult problems, but when handled properly at the outset by well established orthopedic measures, supplemented by specific therapy, they usually yield fairly promptly to treatment. Tuberculous arthritis, incidentally, is becoming a rare disease, the result, no doubt, of the great drop in the incidence of tuberculosis.

There is a third type of arthritis caused by infection. It is sometimes spoken of as "focal infection arthritis" and occurs after a general or local infection in some other part of the body. It is particularly common after tonsillitis or sinusitis, or extensive infection about the teeth. This rather unusual form of arthritis generally yields to rest, physiotherapy and the removal or natural disappearance of the original focus.

II. *Rheumatic Fever.*—**The arthritis of rheumatic fever is readily controlled by salicylates, but the disease, rheumatic fever, as it exhibits itself in the heart and blood vessels, is a chronic granulomatous inflammatory process which does not yield to any form of treatment, but goes ahead to produce chronic fibrous changes in the valves of the heart, the myocardium and the blood vessels. In the real sense of the word, therefore, rheumatic fever is not a curable disease. Until the etiology and the pathogenesis of rheumatic fever are better understood, it is doubtful if the treatment will ever be entirely satisfactory. Medical opinion is quite unanimous that the sulfonamide drugs are useless in controlling the disease, except when employed in small daily doses to prevent the disease in children. It has been conclusively shown by Coburn[1] and others that when 1 to 1.5 grams of sulfanilamide are administered daily, acute streptococcus infections of the respiratory tract can be prevented, and this in turn will prevent the development of rheumatic fever. Rheumatic fever cannot be prevented if sulfanilamide is administered after streptococcus infection has taken place.**

III. *Rheumatoid Arthritis.*—Is rheumatoid arthritis a curable disease? This question has been much debated. Forestier[2] says that less than two per cent of rheumatoid patients achieve a complete and permanent cure. On the other hand some clinicians think that a much higher percentage, 10 to 15 per cent, recover from the disease. Certainly a considerable number of patients with rheumatoid arthritis have remissions, during which they are free of pain and swelling in the joints. These remissions are likely to come fairly early in the course of the disease and sometimes last for several years. Patients who have had rheumatoid arthritis for five to six years rarely get natural remissions. When the disease becomes inactive at this late stage, it seems quite natural to assume that it results from some particular form of therapy.

What are the factors which tend to bring about inactivity or cure in rheumatoid arthritis?

First I should mention the temperament and constitution of the patient himself. It is often said that rheumatoid arthritis usually attacks individuals of inferior constitutional make-up. This in a sense is true, though I can recall numerous exceptions. In my own practice I have seen a number of magnificent specimens, both male and female, afflicted with arthritis. However, these fine physical types usually respond better to treatment than the inferior types.

A second important factor is concerned with environmental influences, such as climate, home

life, and the financial ability of the patient to obtain the proper kind of treatment.

With respect to climate, I wish we knew just how many patients who go to a tropical or subtropical climate obtain complete cure of their arthritis. Unfortunately there are no accurate figures available which give us this information. Naturally it would take a long and careful follow-up study to obtain it, and so far as I know, it has never been done anywhere. However, I suspect from my own personal experience that even in the case of those patients who respond most conspicuously to a warm climate, relapse sooner or later occurs when they return to their usual climatic environment.

**The factor of home environment is very important, not only because it brings in the question of duties and home responsibilities of the wife and mother, but also the more profound problem of temperamental congeniality between husband and wife, parents and children, et cetera. We have heard a great deal in recent years concerning the importance of psychic shock in the etiology of rheumatoid arthritis, and personally I feel that psychic traumas, both great and small, play a much more significant role than focal infection or some of the other factors which have been stressed in the past.**

The financial status of the patient is another factor which plays a large part in the recovery of the arthritic patient. Last spring, at a symposium on arthritis before the American College of Physicians in Boston, I remarked that most of the patients with rheumatoid arthritis that we see in New York belong to the low income group. In this respect the victims of rheumatoid arthritis are similar to those of its first cousin, rheumatic fever, a disease which we have long recognized as being most prevalent among the children of the poor. If poverty predisposes to rheumatoid arthritis, it certainly limits as well the patient's ability to obtain the best treatment. Let us assume the following conversation between doctor and rheumatoid patient:

Physician: "You must go into a hospital or sanitarium and have six to eight weeks of complete rest in bed with intensive therapy."

Patient: "I can't afford the expense attached to such treatment."

Physician: "Then you must rest at home and have a nurse visit you and give you physiotherapy, massage and exercises."

Patient: "I can't afford to stop work; otherwise my family would starve."

Physician: "You must have vitamin D and gold salts. The druggist usually charges you about $6 a box for vitamin D capsules and $2.00 an ampoule for gold salts."

Patient: "I can't afford such expensive medication."

This hypothetical conversation gives only a faint idea of the financial difficulties which confront physician and patient in the proper handling of rheumatoid arthritis.

What are some of the specific factors which we have found most helpful in bringing about remissions in rheumatoid arthritis?

(1) Statistics show that results are better when patients are treated early than they are when patients have had the disease for several years. In this respect arthritis is no different from tuberculosis, syphilis and other chronic diseases.

(2) Rheumatoid arthritis seems to be more amenable to control when it develops later in life than when it develops in the third or fourth decade. Forestier speaks of it as the "benign arthritis of old age."

(3) I am quite convinced that we see many more remissions in rheumatoid arthritis since we began using gold salts for this disease. In statistics which we recently prepared on 235 cases of rheumatoid arthritis treated with gold therapy, 31 per cent had complete remissions and 35 per cent were greatly improved. In cases of less than one year's duration, gold therapy brought about a complete remission of symptoms in approximately 40 per cent of the cases.

Unfortunately, many of these patients sooner or later sustained a relapse. The exact percentage was 34 per cent, about one-third of the remissions. A majority of the relapses occurred within a few weeks or few months after cessation of gold therapy. However, a careful analysis of the patients who had remissions showed that 52 per cent remained free of symptoms for over one year, and a few for over five years. It was not always easy to say just why relapse occurred. Indeed, in many cases no cause could be discovered. In others, however, it was obvious that relapse was due to overwork, acute respiratory infections, emotional trauma, surgical operation or childbirth. Undoubtedly one of the easiest ways

to have a relapse in arthritis is to contract a sharp attack of influenza. This will often be followed by a recurrence of arthritic symptoms and it can happen without any obvious complicating "foci of infection" such as sinusitis, otitis, bronchitis, et cetera. In other words, the influenza virus itself appears to be sufficient to initiate a recurrence of joint symptoms. Fortunately the relapses are nearly always milder than the original attack and they too are amenable to gold therapy, though patients in relapse do not appear to react quite so promptly to gold salts as they did during the original attack.

**As a result of our experience with gold salts, we believe that in spite of its well recognized dangers, the beneficial effect which it often produces on the arthritic patient justifies its use in those who can tolerate the drug. Unfortunately there are some (less than 10 per cent) who are so sensitive to gold that the treatment has to be abandoned. Such patients may develop an intractable and sometimes severe dermatitis or stomatitis; in others, intolerance to gold may show itself in the form of a leukopenia or thrombocytopenia. In such patients, of course, the gold injections have to be discontinued at once.**

IV. *Degenerative joint disease,* or osteoarthritis as it is more frequently called, exists in practically 100 per cent of elderly people, but fortunately produces no symptoms of pain or swelling in the majority of instances. This condition is now generally looked upon as a disease of wear and tear, and as a rule it is only in those cases where the worn-out joints are abused that symptoms develop. In other cases the menopausal syndrome, constipation, dietary indiscretions, et cetera, may be responsible for pain in these joints, even though the traumatic factor is absent.

Osteo-arthritis is a condition which yields fairly well to treatment in most cases, though there are some types, such as osteo-arthritis of the hip, which are quite intractable. To be sure, the actual pathological changes in the joint are not affected by therapy, and the hypertrophic lipping and spurs which occur in such obvious locations as the ends of the fingers in Heberden's nodes cannot be removed by heat, drugs or any other form of treatment. However, patients will not worry, as a rule, about the pathologic changes in their joints, provided these changes cause no pain or discomfort. By the use of rest, heat in various forms, iodides, deep x-ray therapy, et cetera, the physician is able to relieve these patients of most, if not all, of their discomfort. Rest is the most important single factor. Several weeks in bed would cure a great many patients of osteoarthritis in the weight-bearing joints. Next in importance comes physiotherapy in its various forms. Hot applications, including diathermy and short wave, are very valuable, but hydrotherapy is perhaps even more helpful. These patients are greatly benefited by spa treatment. Iodides still hold their popularity in many clinics. We make use of potassium iodide or hydriodic acid, preferably the latter. Iodides do not help all cases, but certainly work wonders sometimes. Deep x-ray therapy has its enthusiasts and may occasionally prove beneficial.

VI. *Arthritis of Gout.* When it comes to the question of the curability of gouty arthritis, we can be a little more dogmatic in our answer and say that while the gouty diathesis is incurable, gout in its acute form is readily controlled by modern therapy. Five to ten doses of colchicine, 1/100 grain by mouth every two to three hours, is usually sufficient to bring about a rapid disappearance of a swollen painful joint. As a rule we continue colchicine until the patient develops signs of intestinal irritation and diarrhea. In addition to the colchicine, sodium salicylate or aspirin may be given to relieve pain temporarily. Cinchophen, 7½ grains three times daily, accelerates the excretion of uric acid. The diet should be low in purins and fats and rich in proteins, such as milk, eggs and cheese.

Chronic tophaceous gout presents much more of a problem than acute gout. Perhaps we can summarize the situation best by saying that no patient should be permitted to develop chronic gout. In other words, by making use of the proper prophylactic measures, chiefly dietary, it should be possible to prevent a large majority of gouty individuals from ever developing chronic gouty arthritis. The first goal of the physician should be a reduction of the blood uric acid to normal limits, one to three milligrams per cent if possible. The character of the diet would depend a good deal on the susceptibility of the patient and the severity of his gout. In elderly pa-

tients, a simple reduction of the purins by the elimination of certain foods, such as red meat, liver, kidneys, sweetbreads, et cetera, may keep the patient comfortable. Gout, like diabetes, is usually more severe in young people, and more stringent measures will have to be employed. Patients should be on a rigid diet, which means of course elimination of nearly all meat, reduction in the amount of fat intake, and the elimination of certain vegetables, such as peas, beans, asparagus, et cetera. It is worth while to note that most authorities now permit tea and coffee in the low purin diet.

Not much remains to be said about the curability of arthritis. I have indicated that the prognosis in arthritis depends on the type of arthritis and also on certain environmental factors and the quality of the treatment. There are various other joint conditions, of which time does not permit a discussion. Traumatic arthritis, intermittent hydrops, allergic arthritis, arthritis psoriatica, et cetera, are all interesting conditions, but cannot be gone into at the present time. Then there is the large group of mechanical disturbances in the joint which are strictly orthopedic problems. Finally, there are the joint manifestations of other diseases, such as acromegaly, erythema multiforme, purpura, et cetera, in which joint manifestations go hand in hand with the progress of the disease itself. In this discussion I have stressed the more important of the prevalent forms of genuine arthritis.

Arthritis has a bad reputation with the practitioner. His general reaction is one of pessimism. However, I hope that I have been able to indicate that the outlook is brighter than it used to be, and that we can look for still more progress in time to come.

33 East 61st Street

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2. Forestier, J., and Certonciny, A.: La chrysothirapie prolongée dans les polyarthrites. Etude de cinquante cas. La Revue du Rhumatisme, (June) 1936.

MSMS

### NURSE SCHOLARSHIPS GIVEN

Two students enrolled in the five-year nurse-training program at Wayne University have been awarded cash scholarships to aid in covering expenses of the current semester. The scholarships were given by the Detroit chapters of two international women's organizations.—*Wayne University Newsletter.*

# Medical Service in Small Industries*

By A. J. Lanza, M.D.
Assistant Medical Director
Metropolitan Life Insurance Company
New York, New York

A. J. Lanza, M.D.
*M.D., George Washington University Medical School, 1906. Served in the United States Public Health Service from 1907 until 1920. During part of this time was detailed as Chief Surgeon of the United States Bureau of Mines, and later, Head of the Office of Occuptational Diseases in the Public Health Service. Mostly engaged in field work doing investigations in industrial hygiene. Conducted the first studies in this country on silicosis. 1920 became Medical Director of the Hydraulic Steel Company of Cleveland. In 1921 was appointed a special Staff member of the International Health Board of the Rockefeller Foundation, and was detailed as Adviser in industrial hygiene for the Commonwealth Government of Australia. In 1926 was appointed Assistant Medical Director of the Metropolitan Life Insurance Company. At present time is a member of the Council of the American Medical Association on Industrial Health. Member of the Sub-committee on Industrial Health of the Health and Medical Committee, Federal Security Agency. Chairman of the Medical Committee of the Air Hygiene Foundation.*

■ We are so accustomed to thinking in large numbers and in large terms that there is always a tendency to overlook not only the needs but the existence of small organizations. The excellence of medical service for employes of many large industrial firms is familiar to everyone, and when industrial medical service is discussed, it is this type of service which we have mostly in mind. Recently emphasis has been placed upon the fact that the majority of American wage earners are employed in small plants which have little or nothing of the type of health service which has become so integral a part of large industries. Eighty per cent of all wage earners are employed in plants of less than 1,000 employes and 97 per cent of all manufacturing concerns employ fewer than 250 men.

The occupational hazards of the small plant are the same as in the large plant but in the former supervision and control of actual or potential hazards are usually much less or lacking entirely. Not infrequently minor hazards are not recognized and major hazards may produce serious and even fatal results before the occupational factor is suspected. Over and above the

*Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 17, 1941.

occupational disease factor is the tremendous loss arising from illness of all kinds among industrial workers. The wastage in health, time and money is enormous but is not appreciated because it occurs in driblets. While it may be true that some employers are ignorant of or unconcerned about occupational hazards and the general health of their employes, most of them are concerned but have not been able to do much about it in view of the lack of accurate information and of available service.

The protection of the lives of wage earners in small establishments and the guarding of their health has attracted the attention of many different agencies. The national defense program has thrown a searchlight on every phase of production. Time loss from sickness in our industries is a major item of wastage and amounts roughly to one and one-fourth million work years per year. The Committee on Industrial Health of the Federal Security Agency has well in mind the importance of the numerous and various types of industry which contribute in any way to national defense and is paying particular attention to the small industry. It emphasizes the fact that the health and medical supervision of the employes in these industries is as important as any other factor in the defense program, and furthermore, that the physicians, engineers, hygienists, and other technicians upon whom devolves the responsibility for employe health and safety, have a function as important as any that comes within the defense program. Fortunately, the defense program has stimulated agencies that were already endeavoring to deal with this situation as well as initiating some new lines of activity.

In accordance with the well established procedure for any successful undertaking in public health, a foundation of education is being laid to insure a sound and lasting program. These educational activities are now well under way and are directed toward industrialists, wage earners, engineers and physicians, as well as some general information directed to the public at large.

**Sickness arising out of occupation has been made compensable in most of the industrial states. This has served to focus the attention of the industrialist upon the economic aspects of ill health among his employes, whether occupational or not, and in the medical profession has aroused an interest not only in the clinical phases of the problem but the preventive as well.**

Within the last few years, the American Medical Association has set up a permanent Council on Industrial Health, one of whose functions is to further the progress of health service in industry by concerted effort throughout the whole medical profession. As a result, committees on industrial health have been organized in some thirty or more state medical associations. The Council also sponsors an annual congress on industrial health and keeps actively in touch with both national and local developments in its field. The Public Health Service, which has long had a Division of Industrial Hygiene, has been instrumental in organizing similar divisions in State Departments of Health, so that there are at present at least forty such divisions in the various states, including those in State Departments of Labor.

**The Industrial Hygiene Foundation is sponsoring a study of sick absenteeism in industry, in coöperation with the Public Health Service, which, it is hoped, by revealing the nature and extent of the health problem in industry, may help to define methods for the control of sickness and to extend industrial health services. I will not attempt to list all the other agencies which are concerned with one or another phase of this whole situation.**

The realization of the needs of small industries and the effort to satisfy those needs are not new. Fifteen years ago, my colleague, Dr. McConnell, under the auspices of the Philadelphia Health Council, organized a consulting health service for small plants. Five hundred employes, however they might be divided in different plants, constituted a unit. For each unit, there was a nurse, and for each two units, a physician. Health lectures, first aid instruction, supervision of plant hygiene, and physical examinations were included in this service and each plant received three hours of health work a week per one hundred employes. The cost was $4.50 per employe per year. It was expected that individual industries would take over this scheme and carry it on themselves if and when they became capable of carrying it on.

This service was later separated from the Phil-

adelphia Health Council and was continued on a private consulting basis by Dr. McConnell's successor, Dr. Everts, who has described it in detail in the *Journal of the American Medical Association* of February 25, 1939. Some of the original firms that participated in this plan, I am informed, are still using it. I mention this to show that one type of service, designed for small plants, worked. Had it had behind it the interest and impetus it would have received under present-day conditions, I am sure it would have had a more far-reaching result in stimulating other similar schemes.

There are two main plans by which the small plant may organize an industrial medical service.

There is the individual physician, usually located in a convenient situation, who gives part time to one or more industrial plants, upon a pre-arranged basis. Such a physician usually is engaged in private practice also but not necessarily. A frequent arrangement is that the physician be on call with respect to the industrial establishment he serves, a first aid man or nurse taking care of minor routine work and summoning the physician when he is needed, and arranging to send other employes to the doctor's office for physical examination or treatment. This is an arrangement of limited value.

It is much more desirable that the physician call at the plant at stated hours and perform as much of his work as practicable in the plant. This serves to identify him with the establishment and not only makes him more familiar to the employes but gives him the opportunity of becoming familiar with the conditions under which they work. All of which tends to increase the confidence of the employes in the physician.

The second plan is where several physicians form a group and arrange to take care of neighboring industries according to their requirements. Such a group frequently includes several specialists and thus may be equipped to meet all the needs of industrial medical service and in many cases their work is of the highest order. Usually, however, such groups cannot be formed except in fair sized communities and consequently do not solve the problem of the small industry in a small community.

One other plan has occasionally been advocated and has, I believe, been tried a few times with no success, and that is to have a group of small industries combine to set up a common medical unit for making physical examinations, looking after plant hygiene, and fulfilling the usual functions of industrial medicine. Apparently this type of arrangement does not appeal to most plant managements; they prefer to make their own arrangements with the physician or physicians of their choice and without respect to other industries in the neighborhood.

**The important thing in industrial medical service, especially in small plants, is not an elaborate setup but an appreciation on the part of the physician of the importance of working conditions in relation to the health of the workmen. He need not be an accomplished toxicologist nor an organic chemist but he should know what, if any, substances or exposures may be present in the plant which may possibly cause illness and what the symptoms of such illness may be.**

**He should have an understanding of the rôle of environmental conditions, light, temperature, humidity, atmospheric pollution, as having a possible effect upon health. The physician should also carry on, by both the written and spoken word, education in health and hygiene. While the working environment is important from the health standpoint, the average wage earner is in his place of employment forty hours in a week of one hundred sixty-eight hours.**

The phyician who serves industry must be able to steer a middle course, being neither unduly prone to ascribe to working conditions, symptoms or complaints not readily accounted for, nor failing to recognize the evidences of a strictly occupational disorder. The key to this situation lies in the word "etiology." The etiology of the purely occupational disease and of other illnesses which may be influenced by working conditions, lies in the workshop. The physician, even if he is serving only one or several small plants, who has no first hand knowledge of shop conditions is at a disadvantage in dealing with his industrial patients.

The difference between medical service in a small plant and in a large one should be a difference in quantity only and not in quality. Preemployment physical examinations are just as important in the one as in the other, and periodic examinations, at least of those workers exposed

to a health hazard, is just as essential whether we are dealing with fifty men or five hundred. The equipment of the small plant medical department is necessarily simple and there is no need for it to be otherwise. Any case requiring specialized diagnostic procedures will be infrequent and should be referred to the proper specialist.

A full time nurse is not only advisable but in all but the smallest plants a necessity. It goes without saying that she should be a trained registered nurse. It is desirable that she should have some public health experience and some instruction in industrial nursing. It is essential that she have the type of personality and of disposition which enables the possessor to get along with people and to like them. The nurse is the eyes and ears of the doctor throughout the plant in his absence.

The functions and responsibilities of the first aid man or nurse, if any, should be carefully stated in writing by the physician, and comprehensive written orders should be posted in the medical department, and it is important that the physician see to it that these written orders are understood both by the nurse or first aid man, and by the plant management so that there is no likelihood that there will be any exceeding of authority in the physician's absence.

The matter of records is most important. Every transaction or treatment, either by the physician or his assistant, should be recorded and a weekly or monthly summary prepared. One of the main reasons why industrial management may fail to appreciate the importance and scope of the medical department is because the executives do not receive concise, informative, periodical reports of what the medical department is doing. This is just as important in a small plant as in one of ten thousand employes. It is advisable to have an individual record of each person in the plant and to summarize the absences and time lost from non-occupational accidents and illnesses as well as from those due to occupation. At the present time, sick absenteeism among industrial workers is receiving an attention long overdue. The duration and nature of disabling illness in a great many plants all over the country is being studied by the Public Health Service.

It is probable that there will be an increasing tendency for physicians to specialize in industrial medical practice but it is inevitable that the main reliance of the small industrial plant will be the local physician or group of physicians who can give a part time service. There is no reason why any qualified physician should hesitate to assume the responsibilities of industrial medical service provided he will learn the fundamentals of industrial hygiene, with special reference to the kind of industry he is serving.

It is in recognition of this that so much attention is being given at the present time to arousing the interests of physicians in industrial work and in acquainting them with the responsibilities and opportunities that fall to the lot of the physician who serves industry as well as providing him with essential technical training. In most of the state medical associations, committees on industrial health have been organized and are sponsoring educational activities among their members. Relationship with State bureaus of industrial hygiene and with schools and with technical groups of kindred interests have progressed to an active participation in conferences and surveys. There is available the medical knowledge and the technical engineering knowledge to provide the best hygienic facilities to every kind of industry. Progress is definitely being made and we are seeing the beginning of the extension of efficient and ethical medical service to the smaller and medium sized industries. Industrial medicine and industrial hygiene are assuming their proper status as one of the major phases of medicine and public health.

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### WAYNE MEDICAL STUDENTS APPLY FOR U. S. COMMISSIONS

Of the 68 senior students and 64 junior students in the Wayne University College of Medicine, more than 9 per cent have applied for commissions as reserve officers in the United States armed forces and Public Health Service. Most of those who have not applied are persons who cannot meet the age requirement or some other specification.

Brig. Gen. Lewis B. Hershey, head of Selective Service, recently announced that medical students in their last two years of college work would be offered Army and Navy commissions. Those accepted are to be deferred from military duty until they have completed their full training so that a stream of trained medical practitioners for the armed forces and civilian population may be assured.—*Wayne University Newsletter.*

# A DEFENSE MEASURE

## Nationwide Immunization Against Diphtheria and Smallpox

A MAJOR effort to secure the immunization of all children over nine months of age against diphtheria and smallpox has been recommended by the Child Welfare Committee of the State Society. This opportunity to prevent disastrous epidemics in Michigan, particularly in those areas having new defense plants and activities, is open to every MSMS member. The State Society urges the profession's wholehearted cooperation in this vital immunization campaign.

Plans for carrying on the program have been developed by the MSMS Child Welfare Committee, the Michigan Department of Health, and the Michigan Branch of the American Academy of Pediatrics. A deterrent in the immediate statewide immunization program, scheduled for completion by May 1, confronts the State Health Laboratories which are held up not only by lack of immunizing material but particularly because of an acute shortage of glassware; rubber bulbs and stoppers. Therefore, the coöperating agencies decided that the campaign should be started in the industrial defense areas, and as more material becomes available, it should be extended to other areas throughout the state. The first area is Wayne County (outside of Detroit), chosen as the defense area most in need of the immunization program. After the program has been completed in Wayne County, it will be extended to neighboring counties, and gradually throughout the state.

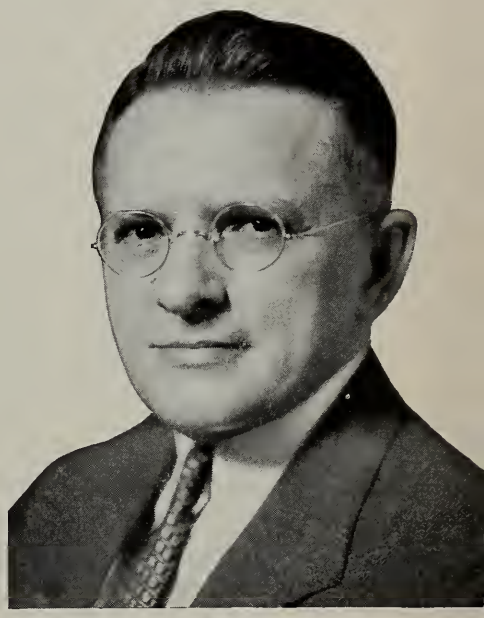
The immunizations will be performed by private physicians (physician-patient relationship).

Plans are being worked out for remuneration to county medical societies from limited federal funds, for immunization of indigents. The program in each county will be under the joint sponsorship of the county medical society and the district and city health departments.

Henry R Carstens

President, Michigan State Medical Society

President's



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## THE ANNUAL MICHIGAN POSTGRADUATE PROGRAM FOR GRADUATES IN MEDICINE

The Michigan State Medical Society, in coöperation with the University of Michigan Medical School, Wayne University College of Medicine, the Michigan Department of Health, and the Wayne County Medical Society, announces the postgraduate courses for 1942.

### INTRAMURAL COURSES

**University Hospital, Ann Arbor**

All dates inclusive

Allergy ..... May 11-15
Anatomy ..... February 12-May 28 (Thursdays)
Diseases of Blood and Blood Forming Organs ..... May 18-22
Diseases of the Heart ..... May 13-15
Electrocardiographic Diagnosis ..... November 16-21
Gastro-enterology ..... May 11-14
Laboratory Technique ..... Throughout year
Nutritional and Endocrine Diseases ..... November 2 - 5
Ophthalmology and Otolaryngology ..... April 23-29
Personal Courses ..... Throughout year
Roentgenology ..... April 13-18
Seminars on Clinical
Examination of Heart ..... February 18, March 25

Wm. J. Seymour Hospital, Eloise
(For further information, write to the Continuation School of Wayne County, 4421 Woodward Avenue, Detroit.)

Seminars on Office Urology ..... April 8-29

Wm. J. Seymour Hospital, Eloise
(For further information, write to the Continuation School of Wayne County, 4421 Woodward Avenue, Detroit.)

Applied Anatomy—Section on Head and Neck.... March 18, June 3

Wayne University College of Medicine, Detroit
(For further information, write or call Dr. M. R. Collings, Wayne University College of Medicine, Detroit.)

Therapeutic Conferences ..... Beginning Thursday, February 5

Wayne University College of Medicine, Detroit
(For further information, write to the Department of Medicine and Pharmacology, Wayne University College of Medicine, Detroit.)

### EXTRAMURAL COURSES

Bay City ..... March 30, April 6, 13, 20
Cadillac ..... April 3, 10, 17, 24
Flint ..... April 1, 8, 15, 22
Grand Rapids ..... April 2, 9, 16, 23
Jackson ..... March 31, April 7, 14, 21
Kalamazoo ..... March 31, April 7, 14, 21
Mt. Clemens ..... April 1, 8, 15, 22

**Subjects**

Approved new methods and drugs in medical and surgical conditions, with particular reference to present emergency. (Panel discussion.)
The therapeutics of whole blood, plasma, and serum.
Estrogenic (steroid) hormones.
Therapeutic problems in pediatrics.
Joint pain and its treatment.
Peptic ulcer. (Panel discussion.)
Ann Arbor ..... April 30, May 7, 14, and 21
Emergency and Traumatic Surgery.

Further information may be obtained upon request.

**Committee on Postgraduate Medical Education**
**Room 2040, University Hospital**
**Ann Arbor, Michigan**

# EDITORIAL

## A POSSIBLE SOLUTION

■ Probably no section of the country is immune from some one or two physicians, who, in giving medical testimony, consciously avoid the truth, but this insignificant minority becomes a significant annoyance to the vast majority of honest doctors of medicine who pride themselves on their unassailable reputation for integrity in or out of court.

According to an article in *The Journal of American Insurance,* the Minnesota State Medical Association has a committee called the Committee on Medical Testimony who after thorough investigation take disciplinary action when needed. This varies from censures to recommendations to the State Board of Medical Examiners that the license of the offending physician be revoked. This committee has been given excellent coöperation by the Minnesota courts. The Justice of the Supreme Court of the State of Minnesota, stated, "You of the Minnesota State Medical Association have the credit of being the first to meet the issue professionally, constructively, and practically. The eyes of the whole American Bar and particularly of all state judicial councils will be, if they are not now, watching your experiment. You are in sole charge of it. We mere lawyers must stand by to render such aid as may be possible."

E. M. Hammes, M.D., of Saint Paul, is chairman of this committee. Dr. Hammes states succinctly, "Those who deliberately deviate from the truth on the witness stand are as guilty of unethical practice and as deserving of severe disciplinary measures, as those who violate other rules of ethical practice. I am positive that already there has been a softening of testimony by a few of the men who have been pretty liberal in their testimony in the past. These men know that there is a committee on medical testimony and they also know that excerpts from their testimony—if it shows any traces of dishonesty—in all probability will be referred to the committee by the court, by attorneys, or by physicians themselves. * * * * Medical testimony in Minnesota is of a very high standard but, unfortunately, a rare few need watching—and they realize they are being watched."

It might be well in Michigan that such a committee should function to clean our ranks of the few who forget the responsibilities of their profession.

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## KEEP 'EM ROLLING!

■ The industries of Michigan now have over $3,000,000,000.00 in National Defense contracts. The life of our nation and its institutions, including the private practice of medicine, depends on maximum production. To achieve this enormous schedule of production our workers must be kept in the best possible physical condition.

A coöperative program for maintaining and improving the health of workers employed in the industries of our State, especially those employed in the smaller industries where full-time medical service is not or cannot be available has been developed by the Committee on Industrial Health of the Michigan State Medical Society and the Bureau of Industrial Hygiene of the Michigan Department of Health.

The Bureau of Industrial Hygiene, directed by K. E. Markuson, M.D., has been and is continuing to conduct studies to determine the various occupational hazards existing in the many industries in all parts of the State. The following procedure has been adopted:

The management will be requested to invite the physicians now serving in industry to inspect the plant while the study is being conducted. This invitation will be sent to you sufficiently in advance of the appointed time to allow you to arrange your schedule.

With the increase in the size of our armed forces we must anticipate the necessity for the employment of many young men with physical impairments as well as reëmployment of many in the older age groups. This means that greater emphasis must fall on examination and placement in industry so as to utilize both the physically fit and those with impairments to best advantage. Likewise, anticipating the employment of those with impairments, periodic examination will be needed more frequently. Your Committee would like to stress the importance of examination for the intelligent placement of men in our essential industries.

Committee on Industrial Health,
M.S.M.S.

## FIRST AID INSTRUCTORS NEEDED

Physicians who desire to aid in the task of giving training in First Aid to the thousands of men and women needed for Michigan's civilian defense can be certified as instructors merely by contacting their local Red Cross office, Dr. L. H. Gaston, deputy chief of the Emergency Medical Service of the Citizens' Defense Corps, Michigan Council of Defense, announced.

"Hundreds of physicians are already devoting their time and effort to this work," Dr. Gaston said. "However, many more are needed if proper and adequate instruction is to be given to the air raid wardens, auxiliary police and firemen, and other volunteers. First Aid is a basic requirement for twelve of the protective services."

Physicians should give to the Red Cross the following information: Full name, address, name of medical school and year of graduation. The information will be sent by the Red Cross to the Midwestern Area Office of the American Red Cross at St. Louis, Missouri, where the doctor's name will be certified. A certificate will then be returned to the doctor, usually in about ten days.

In many cases, the local Red Cross officials request the doctor to begin instruction classes immediately upon application for certification, Dr. Gaston pointed out.

## THE PATIENT'S CONSENT IS NECESSARY

Without the written permission of the patient or a subpoena from the court, is a hospital which presents a patient's records as evidence in court liable to him for damages?

Generally speaking, a hospital which discloses, without proper authority therefor, facts contained in the clinical record of a patient, does so at its own peril. The extent of damages that a patient may sustain by reason of such disclosure, however, would of course vary. If a hospital disclosed that a patient had pneumonia, for instance, the patient might experience considerable difficulty in convincing a jury that he suffered any damages by reason of such disclosure. If, on the other hand, the patient was syphilitic or thought to be and that fact was disclosed, an entirely different picture would be presented. The same principle is involved in connection with the publication of a case history without the consent of the patient. It appears that only one case has arisen in which a hospital has been sued for a violation of a patient's right of privacy in connection with the disclosure of information (Bazemore v. Savannah Hospital [Ga.], 155 S. E. 194).

## OSTEOPATHS PRACTICING IN MEDICAL HOSPITALS

The question of osteopaths practicing in medical hospitals was decided in the Circuit Court of Genesee County, October 20, 1937. The right of the Board of Managers of Hurley Hospital, Flint, a city institution, to refuse to allow osteopaths to practice in the hospital, was upheld by Circuit Judge Paul V. Gadola, who dismissed the motion of L. R. and H. H. Kesten, Flint osteopaths, who asked a court order allowing them to refer patients to, and practice in, the municipal institution. The Court held that the Board has the right to designate who may practice in the hospital as long as the designation is made by class and not against individuals.

The Superintendent of Hurley Hospital testified that the American College of Surgeons and the American Medical Association would refuse to approve the institution if osteopaths were admitted to practice therein. Many advantages would be lost, as for example, interns could not be used by the hospital; the staff of doctors of medicine might refuse their coöperation and support of the institution; the county medical society might withdraw its approval of the hospital, with the result that state cases, such as afflicted children, could not be hospitalized in the institution; the standing and activity of a quasi-public institution which would ordinarily be a great asset to the health and well-being of the people of the community, would be jeopardized by admitting one osteopath to practice therein.

## ALLEGED NEGLIGENCE

Most malpractice suits are based on negligence and allege that the physician failed to comply with his implied contract or with one set up by statutory law. For example, the allegation may

be a want of professional skill or knowledge or, on the other hand, negligence in not applying the skill or knowledge possessed. A physician may also be sued for malpractice because of the acts of his assistants or employes.

Of the many suits instituted in which it is claimed that the physician was negligent in not having availed himself of the use of the x-ray as a diagnostic measure, fracture cases are still in the majority.—SAMUEL WRIGHT DONALDSON, M.D., *The Roentgenologist in Court.*

## MEDICAL CARE FOR RECIPIENTS OF OLD AGE ASSISTANCE, ET AL.

Medical care for recipients of public assistance in the federal categories (Old Age, Aid to the Blind, Aid to Dependent Children), was urged by Senator Green of Rhode Island, in a recent address to the U. S. Senate in which he stated:

> Some provision should be made for State and local agencies to authorize medical care by regular family physicians for the recipients of public assistance, and to pay for such care out of public assistance funds. The Social Security Act does not now permit the Federal Government to match any expenses of this sort; the Federal Government shares only in cash grants to individuals.
>
> I recommend that the Social Security Act be amended to provide for the matching by the Federal Government, on the same basis as in the case of other public assistance costs, of expenses incurred by the State agencies, to provide medical care as suggested above. While a maximum should be fixed for such expenditures, these costs should not be taken into account in connection with the maximum applied to the regular grants for individual recipients. Such action has often been requested by State agencies.

## GUARANTEEING HOSPITAL STAFF POSITIONS

Additional Michigan hospitals which, since February 12, 1942, have advised the MSMS Medical Preparedness Committee that the hospital staff positions in their institutions, now held by doctors entering the armed forces of the United States, will be retained upon the physicians' discharge from active military duty, include:

*Detroit*—Grace Hospital—John H. Law, M.D., Secretary Executive Committee—guaranteed.

—Providence Hospital—R. V. Walker, M.D., Chief of Staff—guaranteed.

—St. Mary's Hospital—Sister Ann, Superintendent—guaranteed.

*Edmore*—Edmore Hospital—M. G. Becker, M.D.,—guaranteed.

*Kalamazoo*—Bronson Methodist Hospital—Paul G. Schrier, M.D., Secretary of Staff—guaranteed.

*Marquette*—St. Luke's Hospital—O. I. Niemi, M.D., Secretary of Staff—guaranteed.

The first and second lists of hospitals which are guaranteeing staff positions were published in the February and March, MSMS JOURNALS.

Additional replies, as received from hospitals, will be published in the MSMS JOURNAL from month to month.

## NEW EMERITUS AND RETIRED MEMBERS

The Michigan State Medical Society House of Delegates, at its 1941 meeting, bestowed Emeritus membership on the following Doctors of Medicine:

C. D. Aaron, M.D., Detroit.
Angus L. Cowan, M.D., Detroit.
Gilbert S. Field, M.D., Detroit.
George E. Frothingham, M.D., Detroit.
Fred J. Graham, M.D., Alma.
Wilber F. Hoyt, M.D., Paw Paw.
Abraham Leenhouts, M.D., Holland.
Wm. C. Martin, M.D., Detroit.
Irwin H. Neff, M.D., Detroit.
Walter R. Parker, M.D., Detroit.
G. L. Renaud, M.D., Detroit.
M. D. Ryan, M.D., Saginaw.
Joseph E. G. Waddington, M.D., Detroit.

According to the MSMS Constitution, Article Three, Section VI, an Emeritus Member is any physician who has been in practice for fifty years and who has maintained a membership in good standing in the MSMS for twenty-five years.

The House of Delegates also transferred the following physicians to Retired membership:

Charles W. Ash, M.D., Bay City.
H. S. Bartholomew, M.D., Lansing.
H. J. Hammond, M.D., Detroit.
E. G. McConnell, M.D., Lansing.
J. H. O'Dell, M.D., Three Rivers.
C. H. O'Neil, M.D., Flint.
C. V. Russell, M.D., Lansing.
C. M. Swantek, M.D., Bay City.

Retired members, according to Article Four, Section V of the MSMS Constitution, are members who have maintained their membership in a component county society for a period of ten or more years and who are certified by their Society as having retired from practice.

## Communication

### NEW APPOINTMENT PROCEDURE FOR PHYSICIANS AND DENTISTS

**Federal Security Agency**
**U. S. Public Health Service**
**Washington**

February 14, 1942.

To District Directors, Medical Officers in Charge and others concerned:

1. The Procurement and Assignment Service within the Office of Defense Health and Welfare Services has the responsibility for assisting in the procurement and assignment of *physicians and dentists* in such manner as to best serve the over-all health and medical needs of the country. It is essential that the personnel policy of the Public Health Service be consistent with the major purposes of the Procurement and Assignment Service.

2. It is desired that applications be solicited from qualified physicians and dentists for commission in the reserve corps of the U. S. Public Health Service. The expansion of the reserve corps of the Public Health Service is necessary to serve two major purposes:

(a) The creation of a pool of qualified public health personnel to safeguard essential civilian health services and at the same time to be available for immediate, though temporary, active duty in the event of some major public health emergency.

(b) The procurement of sufficient numbers of qualified physicians and dentists to enable the Public Health Service to carry on its normal and wartime activities.

3. In order to serve these two major purposes, it will be necessary to recruit into the reserve of the Public Health Service physicians and dentists who come within the two following categories:

(a) Those who are now engaged in public health work and who by reason of special training and experience occupy strategic positions in their present civilian capacities. Such personnel would be expected to remain on inactive status with the Public Health Service, except in the event of a major disaster, in which case they would be subject to immediate, though temporary, active duty.

(b) Those who are professionally qualified and also available for immediate active duty in the Public Health Service for such periods of time as the exigencies of the service may determine.

4. Applications from physicians and dentists relating to commissions in the reserve of the Public Health Service will be processed in the following manner: On receipt of an application by the office of the Surgeon General, the application forms and all supporting papers, including the report of physical examination, will be transmitted with a definite recommendation of the Surgeon General to the Procurement and Assignment Service. The Procurement and Assignment Service will in turn certify to the Surgeon General as to the availability of the individual for appointment. In the case of public health personnel occupying strategic positions in civilian posts, the criterion of availability for commission would rest largely upon the fact that the individual occupies a strategic position, and therefore should remain as long as practicable on an inactive status. In the case of personnel to be called to immediate active duty, the criterion of availability would be based upon the ability of the community to spare the services of the individual. Upon receipt from the Procurement and Assignment Service of notice of clearance, indicating that the applicant is available for a commission in the reserve of the Public Health Service, the appointment will be completed in the usual manner.

5. The above procedure does not apply to the recruiting of individuals for the regular corps of the Public Health Service, nor to the appointment of internes or doctors certified by the Civil Service Commission, nor to the appointment of sanitary engineer officers in the reserve.

6. When the Public Health Service is without acceptable applications from physicians and dentists for filling vacancies, the Surgeon General will request the Procurement and Assignment Service for the names and qualifications of persons available to fill such vacancies. When decision has been reached as to the selection or nonselection of such persons, the Surgeon General will advise the Procurement and Assignment Service.

7. The Procurement and Assignment Service has given its endorsement to the procedure outlined above.

THOMAS PARRAN, *Surgeon General.*

Approved:
PAUL V. MCNUTT, *Administrator.*

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### EXCLUDING TUBERCULOSIS FROM THE NAVY

Compactness of living spaces aboard a naval vessel is a necessity. Advances in ship construction from the standpoint of ventilation and sanitation in general have been made, but men living aboard are still somewhat crowded. Under such conditions an open case of tuberculosis is a real menace. Medical officers are on the alert, but the average sailor likes to think of himself as a rugged, hardy individual and will not, as a rule, report to the sick bay unless he really feels sick.

No applicant showing any degree of adult type tuberculosis is acceptable. Men in the service who develop tuberculosis are retired and are not subject to recall to active duty, even with long standing arrest and minimal lesions.—*Tuberculosis Abstracts,* March 1942.

# EXPERT TESTIMONY AND FEES*

LEO M. FORD, LL.B., J. D.
Fort Wayne, Indiana

Out of all walks of life, the doctor is probably the person most frequently called upon to give expert testimony. Our modern industrialism has increased litigation involving personal injury, and many technical questions arise daily requiring the testimony of an expert. However, in this article, we are concerned chiefly with the position of the doctor who is called upon to testify in a malpractice suit, either for or against a fellow practitioner.

## Opinion Evidence

In general, it is the function of a witness in court to state the facts within his personal knowledge, and a lay witness is not permitted to express opinions or conclusions. The expert witness is the exception to this rule, as he is called for the express purpose of giving his opinion or conclusion on the technical question involved. In a malpractice case, a doctor's special knowledge and experience enables him to accurately draw inferences and conclusions from the subject matter that is clearly beyond the realm of a layman. In fact, expert testimony is essential to the determination of the issues. This is proper inasmuch as the issue to be determined is whether or not the doctor exercised ordinary care and skill in the treatment in question.

Expert testimony has a dual purpose; to clarify the nature of the injury and the probable result therefrom; also to set up a standard of practice in the community by which the defendant is to be judged. The latter is the more important function of the expert witness in malpractice litigation. The whole subject is one requiring special knowledge and experience, based upon years of study and training. When one considers the years of preparation required for the modern physician, it shows how important it is that the rules governing proof in malpractice cases should be strictly enforced. It is unfortunate that, at the present time, there is a tendency in some of our courts to relax the rules of proof and permit laymen to testify to certain facts which a layman may observe, such as that the arm or leg was crooked following the reduction. These courts state that if the member was crooked following the reduction, it is apparent that it was not properly reduced; therefore, expert testimony is not required to prove malpractice.

## Qualifications

It is within the sound discretion of the trial court to determine both the admissability of opinion evidence and the qualifications of the expert. Any licensed physician is considered to be qualified as an expert, regardless of his inexperience in the particular type of case at hand. Manifestly, more weight should attach to the opinion of an expert who has had actual and extensive experience in the particular matters at issue, but in some instances, doctors have been permitted to express an opinion on matters concerning which they have had absolutely no practice. The courts hold that if the doctor states that he is familiar with the proper treatment from study, then he qualifies as an expert in the field, regardless of the fact that he has had no experience whatever.

It is important to note that a doctor may be thoroughly qualified to express an opinion concerning the nature or type of a disease or injury and its probable result, and yet not be qualified to say what would be considered good practice or the exercise of ordinary care and skill in the community, if he does not practice in the community and is not, therefore, familiar with the standard of care and skill in the locality in question. The treatment of all forms of human ailments is not standardized. What may be accepted treatment in one community may not be the approved or accepted practice in another. A court very aptly stated this:

> To qualify as such expert in a malpractice case against a physician, the witness must not only show himself to possess learning and knowledge of the subject of inquiry sufficient to qualify him to speak with authority on the subject, but also a familiarity with treatment and degree of care and skill of other practitioners in the locality in question, sufficient to qualify him to say whether or not the defendant's treatment was consistent with what other physicians in the exercise of reasonable care might do under similar circumstances.

When an expert appears for the plaintiff, it is altogether proper for the defense counsel to

*This article is Part III in a series of authoritative discussions on Medico-legal problems written by Mr. Ford, Attorney for the Medical Protective Company, Fort Wayne, Indiana.

ask permission of the court to cross-examine the witness as to his qualifications and interrogate the witness with respect to his knowledge of similar cases and inquire as to the names of other doctors with whom the witness has discussed a case of similar facts respecting their methods of treatment. A doctor may be recognized in the profession as a leading authority on the treatment of a certain type of disease and yet not be qualified to testify as to the method of treatment usually followed by the doctors in any particular community. The defendant is not to be judged by what some other doctor would do under the same or similar circumstances, but by the treatment followed by the average physician in the same or similar localities. The physician's duty is to render the ordinary care and skill of the average practitioner, and the standard by which he should be judged is determined by the standard or methods accepted and used by his colleagues in his community. Thus, it is unimportant that the witness testify as to what his own method of treating a similar case would be.

### Duty to Testify; Fees

A physician, like any other citizen, is obliged to answer a subpoena to testify in court. A physician, when summoned, may be called as an ordinary fact witness, that is he may be summoned to testify to something which has nothing to do with his profession, and thus he testifies not as an expert. If, however, he testifies on the subject of medicine or surgery or answers a hypothetical question propounded to him, then he is testifying as an expert. On the basis of upholding constitutional government and the administration of justice, it is held that all members of society are under the public duty of attending court and giving testimony when summoned by due process of law. Under present-day statutes, some fee is granted, plus an allowance for mileage for any witness summoned to testify in court. It does not follow, however, that a private litigant has a right to subpoena a physician to give expert testimony without receiving an expert fee. Some of our courts follow the English rule and hold that a physician giving expert testimony is entitled to additional compensation on the ground that an expert's scientific knowledge is his capital stock, his means of livelihood, and his property which should not be taken from him without just compensation. Other courts have denied special compensation to experts for testifying as to opinions formed or answering hypothetical questions, when no extra work was required to formulate the opinion, on the ground that it is the duty of all citizens to aid the law to their utmost ability.

A physician is obliged to answer all questions asked him, if so directed by the court. If a doctor is summoned by a plaintiff in a malpractice case, it seems perfectly proper that he should refuse to give expert testimony unless he receives an expert fee therefore and then be guided by the ruling of the court.

It is contrary to public policy for an expert witness to enter into a contract for fees contingent upon the outcome of the suit. The result of such an agreement is to ascribe to the witness a bias which destroys the value of his testimony and is naturally inimical to the administration of justice. The testimony of experts in cases other than malpractice has caused the law to look with ill favor upon opinion evidence. This is due to the fact that such testimony is usually available at a price, thus weakening or destroying its effectiveness. The profession of Michigan, recognizing that the effectiveness of expert testimony in malpractice cases is weakened if a charge is made, passed the following resolution:

> We recommend that no reimbursements be made to members giving testimony in behalf of other members, and are of the opinion that such service should be rendered as a matter of professional courtesy.—The Journal MSMS, Feb. 1933, p. 137.

A doctor thus testifying in behalf of a colleague in a malpractice case can answer, on cross-examination, that he is not being paid an expert witness fee. Such testimony, therefore, carries much greater weight with the jury.

Furthermore, there is a statute in the State of Michigan which provides:

> Compiled Laws Michigan, 1929, Section 14223. Expert witnesses: fees: contempt for excess fees. Sec. 69.
>
> No expert witness shall be paid, or receive as compensation in any given case for his services as such, a sum in excess of the ordinary witness fees provided by law, unless the court before whom such witness is to appear, or has appeared, awards a larger amount than such award, and any person who shall pay such witness a larger sum than such award, shall be guilty of contempt of court, and on conviction thereof be punished accordingly.

Where the defense of a malpractice case is deserving, it is customary for the doctors to thus

assist their colleague by testifying without remuneration.

### Defense Experts

To exert the greatest influence, the expert for the defense of a malpractice case should be positive and forceful. The issue is whether or not the defendant exercised the degree of care and skill usually possessed and exercised by the other doctors in the locality in question. The witness should remember that there are various methods of reaching the end result, and if he can honestly say that the method pursued by the defendant is a method recognized by his colleagues as an accepted method of treatment, it is the expert's duty to so state forcibly and unequivocally. The expert witness, though expressing a willingness to aid the defendant, but desiring to impress upon the court and jury that he himself might have produced a little better result by altering the treatment in a few details is not an effective witness. This type of hedging lays the witness open to a cross-examination which destroys the effectiveness of his testimony. This point is emphasized by the following quotation from the opinion of the Supreme Court of Utah:

> However, the real controversy between the parties arises over expert testimony offered by plaintiff to the effect that iodine is not a disinfectant; that cultures should have been taken as an initial step in the treatment; that scrubbing with a stiff brush was injurious and not beneficial to the wound; that the leg should have been exposed to the air in order to kill the gas bacilli; and that, in the opinion of the expert offered by plaintiff, Dr. Shields' treatment was improper. This evidence was rejected by the court.
>
> In a case such as this confusion often arises over a failure to distinguish between the expert's opinion as to the proper method of treatment and his opinion as to whether or not the treatment applied conforms to what is generally accepted to be the proper method. The practice of medicine or of surgery has not become so standardized that it is unreasonable for two doctors to have different opinions as to the proper method of treating injuries. If, then, there is reason for the existence of that difference, neither opinion can be proven erroneous by offering as proof thereof merely the other. It does not fall upon the shoulders of the judge or jury to determine whether or not there is a good and sufficient reason for the existence of such a difference; that reason is assumed to be valid when it appears from the evidence that the divisions of opinion are such that it cannot be said of any one opinion that it is generally accepted to be the right one. Consider for the moment the controversy over iodine in the case. Counsel for plaintiff presented an extract from the work of one Dean Lewis which is very emphatic in stating that iodine is worthless as an antiseptic. We have no reason to doubt the sincerity of Dean Lewis, nor, for that matter, the sincerity of plaintiff's expert who would probably testify to the same effect. Dr. Lewis is very convincing with his reference to millions of failures during the World War and the many successes with another form of treatment, but who are we to come forward and say: Yes, Dean Lewis is right, the others are wrong; and Dr. Shields, though he may have done as the others would have done, did not do as Dean Lewis would have done, therefore, he is liable. The mere statement of such a proposition sufficiently emphasizes its fallacy. Dr. Lewis himself shows that there is a difference of opinion as to the propriety of using iodine. He deplores the fact that many doctors "with the blind faith of their forefathers" continue its use. It is quite evident that these "blind" practitioners do not agree with the author. It may be that their only reason for not agreeing with him is "blind faith," but we as laymen do not know what it is. We are not qualified to say that a difference should or should not exist between them. We must rely upon the doctors themselves to dispose of that controversy. When they have concluded that Dr. Lewis is right and the others wrong, then we shall reach the same conclusion. Some of their number may never reach that conclusion, but it is more than likely that, if Dean Lewis is right in his contentions, it will not be long before a sufficient number of the doctors will agree with him and thus constitute his views the generally accepted views upon the subject of iodine; and therefore right in so far as the law is concerned.

It is, therefore, the duty of the expert for the defense to look into the subject from a broad point of view; and when such witness is convinced that the defendant treated the case with that degree of care and skill required by law, he should testify whole-heartedly that in his opinion the treatment of the defendant fully met the legal requirements of good practice.

It would be very helpful if each local society would form a defense committee charged with the duty of scrutinizing the expert testimony given in any malpractice case. They are the ones who can best determine whether such testimony is given honestly and without perjury. The society should stand ready to furnish expert testimony for the defense of any unmerited malpractice case, at no cost to the defendant, after a full investigation of the facts and the development of an honest opinion. Malpractice suits differ greatly from other types of personal injury cases where expert testimony is not required to determine the question of liability. Honesty on the part of the expert witness is a primary requisite; honesty to the patient, to his colleagues, and to himself.

## INFANT MORTALITY AT NEW LOW

**Michigan's infant mortality rate in 1941 dropped to 38.9 for an all-time record. This was the first time in the state's history that fewer than 40 babies out of every 1,000 live births died in their first year. In 1940 the infant mortality rate was 40.7.**

**Coupled with the new low mortality rate was a new high in the number of live births in Michigan last year. Department records show that 107,618 babies were born alive in 1941. Compared with the previous record of 99,940 births in 1927, the total was higher by more than 7,500 births.**

**The number of deaths last year among babies in their first year of life was 4,182. In 1940 the total was 4,022.**

## IMMUNIZING CAMPAIGN

Detroit and Wayne county are the starting points of Michigan's emergency immunization campaign to protect children over nine months and under ten years of age against diphtheria and smallpox.

Other defense areas will be next in the program which is expected to cover the entire state by May 1, Child Health Day.

The State Health Department is urging parents to take all unprotected children to their physicians immediately. The toxoid and vaccine used in the immunizations is that produced and distributed by the Department laboratories.

## MEXICAN FIELD WORKERS

Before work begins in the state's sugar beet fields, this year, the State Health Department expects to supervise again the health examination in Texas of 12,000 prospective Mexican field laborers.

These annual health examinations were begun in 1937 when it was found that there were many more Mexicans receiving sanatorium care at public expense for tuberculosis than would have been expected from their numbers in the population. The preëmployment examinations in Texas with a fluoroscope have screened out persons having tuberculosis. Out of 17,600 Mexicans who went through the examining center in San Antonio in three years, 400 were rejected because they had tuberculosis.

In order to examine as many workers as will be needed in Michigan sugar beet fields this year, a center at Dallas will be added to the one at San Antonio. Coöperating in the examinations are the Michigan Beet Growers Association, the Texas State Health Department, the health departments of Dallas and San Antonio and the Michigan Department of Health.

## SCARLET FEVER LEADS

Scarlet fever is now Michigan's No. 1 communicable disease. From January 1 through March 6, 2,484 cases were reported to the State Health Department. Whooping cough with 2,178 cases is in second place followed by measles with 1,537 and lobar pneumonia with 683.

Cases of other communicable diseases reported to the Department for the same period were: diphtheria 46, streptococcic sore throat 41, poliomyelitis 7, typhoid fever 1, and rheumatic fever 1.

## RESULTS OF HEALTH EXAMINATIONS ANNOUNCED

Eighty-five per cent of the 422 new full-time students who were examined upon entrance at Wayne University in February were given "Class A" ratings in physical examinations recently completed, according to Dr. Irvin W. Sander, director of the Student Health Service. Such rating makes possible unrestricted participation in health-education activities; a lower rating calls for a milder schedule of exercise.

Twelve per cent of the students examined showed no evidence of physical defects. Commonest impairments involved teeth, vision, the nose and throat, hearing, the circulatory system, and the kidneys. Students affected were referred to their family physicians or dentists for care.

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# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

**100 Per Cent Club for 1942**

*Ingham*—R. J. Himmelberger, M.D., Secretary.

*Menominee*—W. S. Jones, M.D., Secretary.

*Midland*—H. H. Gay, M.D., Secretary.

*Muskegon*—Thomas J. Kane, M.D., Secretary.

*Oceana*—V. W. Jensen, M.D., Secretary.

*Sanilac*—E. W. Blanchard, M.D., Secretary.

*Tuscola*—F. J. Gugino, M.D., Secretary.

The above County Medical Societies have certified 1942 dues for every member of their respective societies to be among the first 100 per cent paid up counties for 1942. Unpaid members are delinquent as of April 1, 1942, and should see their respective county medical society secretary at once in order to insure that their membership does not lapse.

*H. C. Hill, M.D.,* Howell, addressed the Sanilac County Medical Society at Sandusky, March 19, on the subject of "Medical Preparedness."

*Major C. I. Owen,* Lansing, addressed the annual meeting of the Staff of St. Mary's Hospital, Grand Rapids, recently.

* * *

*Fred R. Reed, M.D.,* Three Rivers, spoke to the Public Health Officers of southwestern Michigan in Kalamazoo on March 13.

* * *

*Henry J. Vanden Berg, M.D.,* Grand Rapids, addressed the Women's Club of Caledonia on "Cancer Control," on February 19.

* * *

*H. S. Collisi, M.D.,* Chairman of the MSMS Public Relations Committee, Grand Rapids, addressed the Tri-County Medical Society at Hart on February 19 on "Medical Preparedness."

* * *

*In the First World War,* the total number of doctors of medicine who were mustered was approximately 30,000. Of the medical officers enrolled, 98.3 per cent were called from civilian ranks.

* * *

*C. G. Clippert, M.D.,* Grayling, appeared before the Bay County Medical Society on March 25; before the Alpena County Medical Society on March 26, and is scheduled to address the Saginaw County Medical Society on April 21.


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*The Bulletin* cover of the Ingham County Medical Society has been changed and now carries photographs of prominent local institutions. Among the photographs carried thus far have been the Capitol building, St. Lawrence and Edward W. Sparrow Hospitals.

* * *

*M. J. Holdsworth, M.D.,* Grand Rapids, has been selected as the Golf Chairman for the 1942 MSMS Annual Convention. Blythefield Country Club has been chosen for the Sixth Annual Tournament which will be held on Monday, September 21, 1942.

* * *

*Procurement and Assignment* enrollment forms were to have been mailed to every physician in the United States about April 1, 1942. Physicians are urgently requested by P. R. Urmston, M.D., Chairman of the Procurement and Assignment Committe for Michigan, to immediately fill out the questionnaire and enrollment form and return it without delay, thus signifying their desire to serve their country in this time of emergency whether at home or with the armed forces.

* * *

*The Northern Tri-State Medical Association* held its Sixty-ninth Annual Meeting at Fort Wayne, Indiana, on April 7, 1942. Among the guest speakers were Nicholas Eastman, M.D., Baltimore, Maryland; Jonathan Forman, M.D., Columbus, Ohio; William S. Keller, M.D., Columbus, Ohio; Paul B. Magnuson, M.D., Chicago, Illinois; Beveridge H. Moore, M.D., Chicago, Illinois; Irvine H. Page, M.D., Indianapolis, Indiana; Arthur H. Parmalee, M.D., Chicago, Illinois; Paul Starr, M.D., Chicago, Illinois; Clair L. Straith, M.D., Detroit, Michigan, and Frederick Yonkman, M.D., Detroit, Michigan.

* * *

*H. Allen Moyer, M.D.,* State Commissioner of Health, appointed the following committee to study the needs for the control of communicable disease which have arisen due to the sudden influx of defense workers in certain areas of the state, particularly where no organized health department exists: Frank Van Schoick, M.D., Jackson, representing the Michigan State Medical Society; E. V. Thiehoff, M.D., Lansing, representing the Michigan Department of Health; Edgar Martmer, M.D., Detroit, representing the Michigan Branch, American Academy of Pediatrics; Mrs. Lena Schermann, R.N., Mason, representing the Michigan State Nurses Association, and Mr. G. Robert Koopman, Lansing, representing the Michigan Department of Public Instruction.

The Committee was appointed pursuant to a recommendation made by the Child Welfare Committee and approved by The Council of the Michigan State Medical Society.

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Physicians are again urged to save containers and vials in which they receive biologicals, including the rubber stoppers and bulbs, and return them promptly to the State Health Laboratories, Lansing, Michigan.

*The Michigan Association of Industrial Physicians and Surgeons* held its 1942 Annual Meeting in Flint, on April 1. Among those on the program were: Henry H. Kessler, M.D., Newark, New Jersey; A. H. Whittaker, M.D., Detroit; Kenneth E. Markuson, M.D., Lansing; Harold H. Gay, M.D., Midland; C. W. Muehlberger, Ph.D., Lansing; Max Burnell, M.D., Flint; Grover C. Penberthy, M.D., Detroit; John B. Hartzell, M.D., Detroit; Capt. N. K. Jensen, M.C., U. S. Army, Camp Crowder, Missouri, and Jackson Livesay, M.D., Flint. Following the Annual Banquet, Clay Ray Murray, M.D., New York, spoke on "The Operative Treatment of Fractures." Another feature of the meeting was the fracture exhibit sponsored by the Department of Traumatic Surgery, Hurley Hospital, Flint.

* * *

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**The Wm. S. Merrell Company, Cincinnati, Ohio.**
**Michigan Medical and Michigan Hospital Service, Detroit.**
**The C. V. Mosby Company, St. Louis, Missouri.**

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember *your friends* when you have need of equipment, medical supplies, appliances or service.

* * *

*Nearly 1,100 physicians* from all corners of the State of Michigan came to Detroit on March 10 to hear a discussion of Procurement and Assignment. Charles H. Phifer, M.D., Chicago, Chairman of the Sixth Corps Area Committee on P. & A., and Dr. G. D. Timmons of Chicago. Captain Fred R. Hook, of the U. S. Navy Medical Corps, and Major Roger Prentiss, of the U. S. Army Medical Corps, Washington, D. C., outlined the needs of their respective organizations for medical personnel. John S. Coulter, M.D., Chicago, Regional Medical Officer, Office of Civilian Defense, discussed the organizational setup of civilian defense, particularly the organization of emergency medical service.

Despite the hazardous road conditions, physicians were present from practically all of the counties of the Lower Peninsula and some from the Upper Peninsula made the long trip.

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*The Annual Spring Clinic of the Ingham County Medical Society* will be held at the Hotel Olds, Lansing, Michigan, on Thursday, May 7, 1942, from 11:00 a. m. through the afternoon and evening. The program will include a symposium of rheumatic fever, papers on surgery, gynecology and therapeutics and war medicine. Among the speakers will be Stanley Gibson, M.D., of Chicago, pediatrician; Richard B. Cattell, M.D., of Lahey Clinic, Boston, surgeon; Virgil Simpson, M.D., of Louisville, Kentucky, internist, and Norman Miller, M.D., Professor of Obstetrics and Gynecology, Ann Arbor, Michigan.

The program will include luncheon and evening dinner. All physicians are invited.

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### THE WAYNE UNIVERSITY COLLEGE OF MEDICINE ANNUAL ALUMNI CLINIC DAY

Horace H. Rackham Educational Memorial Building
Detroit, Michigan

May 6, 1942

*Morning Session, 9:00 a.m.*

Registration

"Proven Preparations in Endocrine Therapy and Their Application."—Elmer L. Sevringhaus, M.D., Professor of Medicine, University of Wisconsin Medical College

"The Present Status of the Surgical Treatment of Hypertension."—Alfred W. Adson, M.D., Neurological Surgeon, Mayo Clinic

Business Meeting of the Alumni Association

*Noon Luncheon, 12:00 m.*

Complimentary Luncheon

*Afternoon Session, 1:10 p.m.*

"X-ray Treatment of Lesions of the Face."—John Murphy, M.D., Roentgenologist, St. Vincent's Hospital, Toledo, Ohio

"The Recognition and Management of Acute Injuries to the Chest."—George Curtis, M.D., Professor of Surgery, Ohio State University.

"The Diagnosis of Splenic Enlargements."—Plinn F. Morse, M.D., Pathologist—Harper Hospital, Detroit, Michigan

*Evening Banquet, 7:00 p.m.*

Horace H. Rackham Educational Memorial Building For Alumni and their Wives

Speaker: Preston Slosson—Professor of European History, University of Michigan, and Popular Radio Commentator. "Making the World Safe for Democracy—Can We Do It This Time?"


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*This advertisement is printed by the wine growers of California acting through the Wine Advisory Board, 85 Second Street, San Francisco. The nonprofit Wine Advisory Board invites your requests for further information about California wines.*

## IN MEMORIAM

**Byron E. Burnell** of Flint, was born in the year 1867 and was graduated from the Detroit College of Medicine in 1901. He immediately began his practice in Flint. He was past-president and an honorary member of the Genesee County Medical Society and many civic organizations. Dr. Burnell died at Hurley Hospital on February 16, after a prolonged illness which had confined him to the hospital since December 25.

**F. J. Graham** of Alma, was born at Cooksville, Ontario, April 17, 1856, and was graduated from the University of Michigan Medical School in 1891. The year of his graduation, Dr. Graham located in Sumner and practiced there, with the exception of three years spent in the West, until 1917, when he moved to Alma. His son, Dr. Bernard Graham, entered partnership with his father in 1932. Dr. Graham retired from active practice in 1939. He was elected to Emeritus Membership in the Michigan State Medical Society in 1941. Dr. Graham died in New Orleans on March 8, 1942.

---

**Writes on Adolescence**

"Adolescent Changes as a Factor in Delinquency," an article by Prof. Fritz Redl of Wayne University, has been issued in reprint form following its appearance in the 1941 yearbook of the National Probation Association.—*Wayne University Newsletter.*

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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

SYNOPSIS OF GENITO-URINARY DISEASES. By Austin I. Dodson, M.D., F.A.C.S., Richmond, Virginia. Professor of Genito-urinary Surgery, Medical College of Virginia; Genito-urinary Surgeon to the Hospital Division, Medical College of Virginia; Genito-urinary Surgeon to Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital; Urologist to St. Luke's Hospital and McGuire Clinic. Third Edition, with 112 illustrations. St. Louis: The C. V. Mosby Company, 1941. Price: $3.50.

This is the third edition of the synopsis first published by Mosby in 1934. In this revision the new chemotherapeutic agents are extensively discussed and explained. Other changes have been made to clarify the subject.

IMMUNOLOGY. By Nobel Pierce Sherwood, Ph.D., M.D., F.A.C.P., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Second Edition. Illustrated. St. Louis: The C. V. Mosby Company, 1941. Price: $6.50.

This is the second edition, first published in 1935. In order to bring the subject matter up to date the chapters have been re-arranged, some material deleted, and new chapters added; one of them, "The Reticulo-Endothelial System," and one on "Serum Reaction." The material is simplified to make it more comprehensible. Many colored plates are used and the discussion is complete with an extensive bibliography. The typography is excellent. It is recommended to the advanced student.

THE 1941 YEAR BOOK OF PATHOLOGY AND IMMUNOLOGY. Edited by Howard T. Karsner, M.D., Professor of Pathology, Director of the Institute of Pathology, Western Reserve University, Cleveland; and Sanford B. Hooker, A.M., M.D., Professor of Immunology, Boston University School of Medicine; Member, Evans Memorial for Clinical Research and Preventive Medicine; Immunologist, Massachusetts Memorial Hospitals. Chicago: The Year Book Publishers, 1941. Price $3.00.

The well-chosen illustrations make the abstracts of the pathological section of this year's book a valuable reference for the progressive physician. The discussion of immunology brings up to date the newer findings in this still undeveloped field. The editorial comment and the classification simplify the absorption of this complicated field.

THE 1941 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY. Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. Chicago: The Year Book Publishers, Inc., 1941. Price: $3.00.

Emphasis, in this year's volume, is laid upon the newer type of operations on the bones and joints. Five-sixths of the volume is confined to orthopedic surgery and only one-sixth to that great increasing field of industrial surgery and medicine. This seems out of proportion. The abstracts are exceptionally well chosen and well done.

SURGICAL PRACTICE OF THE LAHEY CLINIC. Boston, Massachusetts. 376 illustrations. Philadelphia: W. B. Saunders Company, 1941. Price: $10.00.

This represents a cross-section of the Lahey Clinic work as practiced today; its methods, techniques, diagnostic measures, and results. The methods represent an attempt at such standardization as will permit

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each surgeon to perform each surgical procedure largely in the same way which, Frank Lahey believes, will bring the best results with the lowest mortality. It is excellently written and illustrated. The typography is good and it is well organized. It is recommended for every general surgeon.

THE MEDICAL CLINICS OF NORTH AMERICA. November, 1941. Vol. 25; No. 6. Military Medicine. Philadelphia: W. B. Saunders Company, 1941. Price: Cloth $16.00 per Clinic Year; Paper $12.00 per Clinic Year.

Nearly every phase of medicine applicable to military service is covered by an authority on that particular specialty. Lessons learned in the first World War are brought to mind and information gained from European sources in the present war is presented. The volume is recommended as part of our preparedness program. The typography is good and the organization well done.

## Reading Notices

### "WAR OR NO WAR—

"Depression or no depression, in good times and in bad," Mead Johnson & Company are keeping the faith with the medical profession. Mead Products are not advertised to the public. If you approve this policy, please specify *Mead's.*

### CONCENTRATED LIVER EXTRACT NOW OFFERED BY SQUIBB

Rounding out their line of hematinics, which is now virtually complete for most medical purposes, E. R. Squibb & Sons, New York, have announced the availability of Concentrated Liver Extract. The new item is a sterile, aqeous, highly concentrated solution obtained from edible liver, preserved with 0.5 per cent phenol.

Concentrated Liver Extract Squibb offers the advantages of being low in total solids and exceptionally clear and light-colored. It contains 15 units (injectable) per 1 cc., standardized on the basis of the hematopoietic response in Addisonian pernicious anemia as defined by the U. S. P. Anti-Anemia Preparations Advisory Board.

Concentrated Liver Extract Squibb is given by deep intramuscular injection, usually into the deltoid muscle. In treating pernicious anemia, 15 units (1 cc.) are given daily for two days, followed in about 10 days by 15 units weekly until the blood picture is within normal limits. The average maintenance dose is 15 units every one to four weeks.

The new Squibb product is supplied in 1 cc. vials containing 15 units (injectable) in boxes of 3 ampuls; and 5 cc. vials, containing 15 units (injectable) per 1 cc.

## SPECIAL CARE OF BABIES IN EVENT OF AIR RAIDS

Instructions as to the special care of babies in the event of an air raid, based in part on the experience of London and other English cities, were made public today by the American Committee on Maternal Welfare.

In view of the general possibility of air raids on American cities, particularly in the coastal zones, the committee regards it as important that American mothers understand and prepare well in advance for the task of protecting their babies. The committee is composed of the leading medical, public health, nursing and hospital organizations of the country and can thus speak with authority.

Aside from the immediate need of shelter from bomb explosions, the most important fact to keep in mind, the English have learned, is that the mother's mental attitude is baby's best guarantee against air raids.

"However frightened you may feel," the committee quoted from instructions issued by the British National Baby Welfare Council, "keep outwardly calm and unflurried, so that the child's confidence in your own protectiveness may not be shaken.

"Never speak of the raid in the child's hearing if you can avoid it. Mental impressions are formed very much earlier than most people realize. Many of the problem cases among grownups of the present day owe their condition to their parents having talked continually in the presence of the children about past and future air raids, about their own terror, and the effect of this on the child. The following words are as true today as when they were written thousands of years ago: 'In quietness and confidence shall be your strength.'"

When the raid signal sounds, the first move should be in the direction of the nearest shelter. If there is no shelter, take the baby to the safest room in the house, or to a closet under the stairs or under a table or bed, so that he may be protected from flying debris, which presents the most frequent danger.

Take with him garments enough to keep him warm according to the season; a basket or pillow on which he can lie; a first-aid outfit in case of need; a toy to amuse him; his bottle of milk and bottle of water, together with extra diapers and related equipment.

The baby's ears should be blocked with cotton wool to minimize the effects of concussion, leaving plenty outside so that it may be easily withdrawn afterward.

If the raid should come while the baby is away from either house or shelter—for an airing in the park, for instance—find the nearest wall or ditch, however low, place the baby on the ground beside it, with pillows from the baby carriage or a heavy coat under and over him, and lie down beside him.

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FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting May 4, June 29 and September 21. Informal course available every week.
GYNECOLOGY—Two Weeks Intensive Course will be offered starting June 15 and October 19. One Month Personal Course starting August 3. Clinical and Diagnostic Courses every week.
OSTETRICS—Two Weeks Intensive Course will be offered starting October 5. Three Weeks course starting May 25 and August 10. Informal Course every week.
OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14. Clinical and Special Courses every week.
OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28. Five Weeks Course in Refraction Methods starting May 11 and October 19. Informal Course every week.
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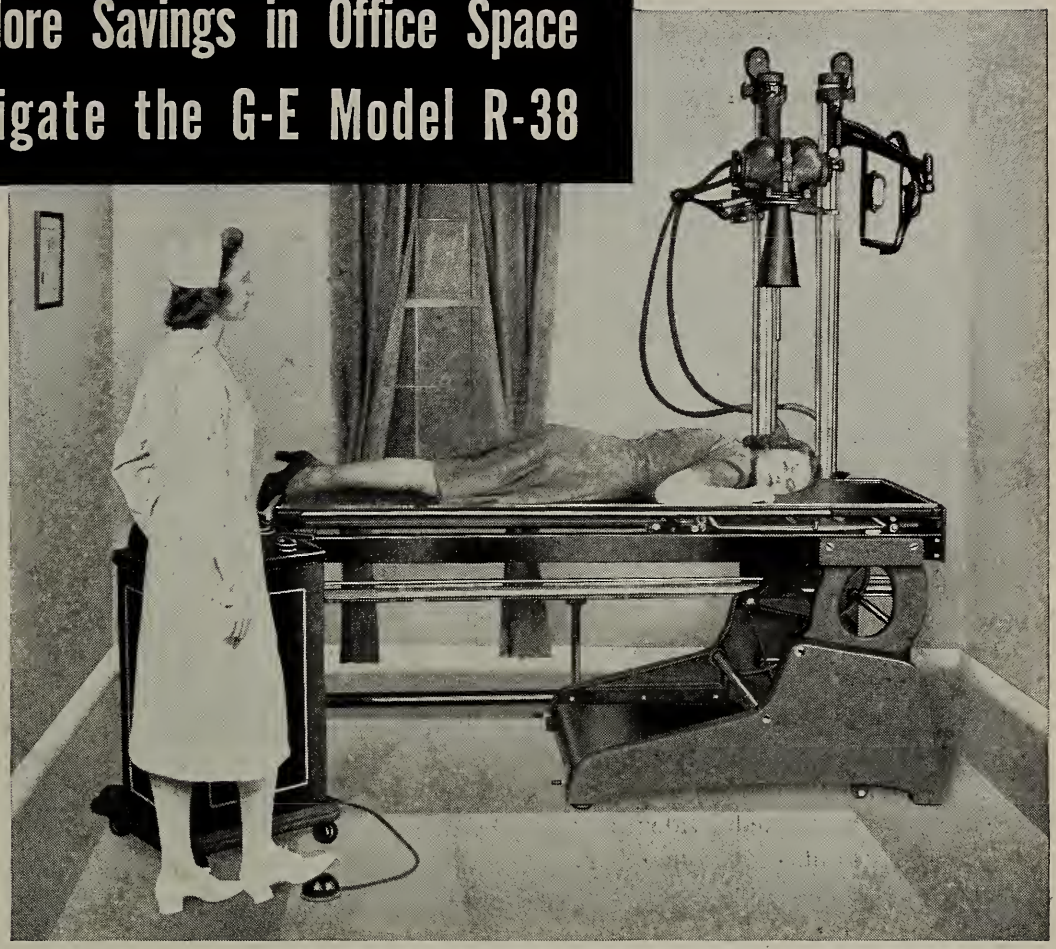

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## NOTES ON THE APPENDIX VERMIFORMIS: ANATOMICAL AND CLINICAL*

GEORGE DOCK, M.D.
Ann Arbor, Michigan

*(Continued from April, 1942 issue)*

### Occlusion of Appendix

This was found in the body of a man of seventy-two, dying of phthisis of many years' duration. The patient had been under the care of Dr. Breakey for a long time, more recently under that of Dr. Wessinger. No history of appendix disease was known.

The appendix was two inches long, hanging down into the pelvis. The proximal half was converted into an impervious cord not quite one-eighth inch thick. The distal end was slightly thicker, but not dilated; the coats fibrous-looking.

This shows eight cases, or 10 per centum of appendices, with marked evidences of disease, or abnormal contents. It would be much more valuable if we could know the histories of the cases, and it is to be hoped that in future a more careful search for the remains of disease in those who recover from appendicitis will be made.

These cases may be used in statistics in connection with others, and it is hoped their publication will serve a purpose.

The following cases are reported as additions to the natural history of appendix disease:

### Recurring Appendix Disease Mistaken for Osteo-Sarcoma

Correct diagnosis at second attack; operation; recovery; death three months later from obstruction of intestines.

The patient, J. Sch., aet. 40, came under my care in September, 1890, while temporarily in charge of the surgical wards of a colleague. The patient was admitted for retention of urine, to which he was subject as the result of old stricture of urethra. On rectal examination, the prostate was found enlarged especially on the right side. The stricture was not very tight. Under the use of alkalies, with catheterization, the symptoms were soon relieved. About this time a swelling appeared in the right inguinal region. It was first discovered deep down, just beneath the middle of Poupart's ligament, being found during catheterization, though there was no evidence of it by the rectum. Gradually the swelling became more superficial, and finally redness of the skin and slight softening appeared.

There were no constitutional symptoms, other than those, already much milder, which accompanied the retention. The patient said he had had a similar attack a year before and recovered spontaneously. As the swelling had no connection with the prostate, I concluded it must be of appendicular origin. At that time my colleague returned, and as soon as he saw the patient said he remembered him well, and that he had a sarcoma of the pelvis. On expressing my surprise, he showed the case book, by which it appeared that, a year before, the man had been admitted in a similar condition. A consultation was then held, the man examined under chloroform, a diagnosis of osteo-sarcoma made, and the patient discharged, an operation being considered inadvisable. The swelling soon disappeared, leaving no trace the patient could discover.

An examination soon made it clear to my colleague that the mass we had then to deal with contained fluid. Under chloroform, an incision was made parallel to, and just above, Poupart's ligament, and a large quantity of fæcal-stinking pus and tissue debris evacuated. The cavity was separated from that of the abdomen by a firm wall, apparently more than half an inch thick. The whole cavity was lined by granulation tissue. There was no fæcal matter in the pus, and though the suspicion of appendix disease was greatly strengthened it was considered better not to explore for it at that time.

*(Continued on Page 352)*

*Presented at the Twenty-Seventh Annual Meeting of the Michigan State Medical Society held in Flint, May, 1892.

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# SODIUM MORRHUATE

***for obliteration of varicose veins***

- Causes no bruising
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Has also been used successfully in treatment of hemorrhoids

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PHARMACEUTICALS and BIOLOGICALS

# CHEPLIN BIOLOGICAL LABORATORIES, INC.
## SYRACUSE, NEW YORK

*(Continued from Page 350)*

The cavity was washed out and packed and in a few days healed up and the man was discharged.

Three months later, December 26, 1890, the patient was admitted, late at night, to the Sealy Hospital. The patient was almost in collapse, with evidences of peritonitis and history pointing to obstruction of the intestines for four days. Dr. Hadra made abdominal section and found general peritonitis, with a small quantity of pus in the recto-vesical space and pus and fibrin flakes between the coils of intestines. The cause of the obstruction was a long tense omental band, adherent to the anterior abdominal wall, low down on the right side, with a number of loops of small intestine tightly caught and turned sharply over it. There were several adhesions between loops of intestines. The band was cut off short and ligated, the adhesions loosened, and the abdominal cavity thoroughly flushed out with hot water. The appendix was looked for but could not be found. The abdomen was closed. No one at the operation knew the patient's previous history, and the patient himself was unable to give it. Four hours after the operation the patient died.

Next morning, I was called in to make the autopsy and at once recognized the man. The scar of the old operation was quite narrow and pale. The peritoneum showed traces of severe inflammation everywhere. Four feet of ileum just above the valve were almost black, swollen, the mucous membrane thick and gelatinous. The cæcum was in the usual position, but fastened down to the end by firm adhesions so smooth that it seemed as if the cæcum was not entirely surrounded by peritoneum. The appendix could not be found at first, but on raising up the cæcum and breaking the new formed covering, it was found lying close to the iliac vessels and ending at the right pubic spine, to the connective tissue behind which it was adherent and could be separated with difficulty. The whole appendix was covered with a layer so smooth as to make it seem as though the organ was behind the peritoneum. This was all the more confusing from the general peritonitis which marked the opacity of the investment. The walls of the appendix were thick and rigid. The tip was curled downwards for half an inch beyond the adhesion to the pubis, and at the extreme end was a fine opening, through which a thin whitish fluid could be pressed. The opening was beneath the peritoneum and led into a fine sinus which could be traced down to the bottom of the pelvis. The peritoneum on the lower pelvic wall, from the crest of the pubis to the bottom, was thick and closely adherent to the dense cicatricial connective tissue which indicated the site of the abscess opened three months before. The bladder was adherent to the pelvic peritoneum on the right side, and to the rectum by old adhesions. The prostate was examined to see if the abscess had any connection with it, with negative results. It showed cicatricial remains in both lateral lobes, especially the right. There was a stricture of large calibre in the middle of the penile part of the urethra and another in the membranous part.

The appendix was empty, save a small quantity of thin, whitish fluid. Its walls presented an appearance much resembling that in the case of mucous plug, indicating inflammation affecting all the coats. The other organs in the body presented no changes bearing on the case.

This seemed to be a peculiarly instructive case of recurring appendicitis. The fatal end was of course an indirect one, from the adherent omentum, yet it cannot be doubted that the patient was constantly threatened with general peritonitis originating from the appendix. An operation in a period of quiescence, with removal of the appendix and search for and removal of omental adhesions, which should always be suspected, might have entirely prevented further trouble.

The next case was one with more familiar features, but presents interesting diagnostic and therapeutic aspects.

Began as a case of catarrhal enteritis, with mucous and slightly bloody stools, following the eating of a large quantity of grapes. Under treatment this improved, but became worse again and vomiting began. Soon after this, I first saw the patient. She had vomited everything swallowed for some hours, iced champagne included. The patient moved freely about the bed, the mind was clear and cheerful; face slightly flushed, temperature 101°. The patient complained only of vomiting, and pain in the left side under the false ribs. The abdomen was soft, not distended. Pressure was well borne everywhere except just over the position of the lower end of the spleen,

*(Continued on Page 354)*

# *Taking the virus for a ride . . .*

TAMING THE VIRUSES is a major feature of the vast research program at Lederle Laboratories. Here you see a Lederle scientist about to take one of the killers for a ride on the high speed, air-driven ultra-centrifuge—a tool that has been of tremendous value in facilitating the study of purified, filterable viruses. Whirling at speeds of 30,000 to 60,000 revolutions per minute, it virtually spins the heavier virus molecules dizzy, forcing them to let go their death grip on the tissue specimen. After the ride is over, the virus can be easily separated.

Thus the elusive viruses, cause of more than three score human and animal diseases, are brought out into the open, where research can watch them under control.

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*(Continued from Page 352)*

and in the epigastrium; there was no increased resistance at any point. The tongue was red, the papillae enlarged. There had been no stool for about twelve hours.

Appendicitis had been suspected from the beginning, but there seemed not sufficient evidence of it. The vomiting impressed me as that of peritonitis. Small doses of calomel were given. The vomiting ceased and the patient slept well. In the following morning the vomiting began again, the temperature rose to 102.8°, higher than it had been at any time before. About noon the patient complained of sudden pain below the umbilicus, the temperature fell, the extremities became cool, and the patient went rapidly into collapse, with delirium, and died three hours later.

At the autopsy, was found general peritonitis, with about half a pint of thin, whitish pus and fibrin flakes between the coils of intestine.

The appendix lay along the brim of the pelvis, its serous covering red and with a patch of firm fibrin over the distal end.

The cæcum was normal. About a foot above the valve the adjacent surfaces of a loop of ileum were found adherent. On separting this, a necrotic area, almost black, about the size of a dime, was found. The colon just below the splenic flexure showed a similar spot, corresponding to another on the surface of the small intestine lying in contact with it. In these places, as in the rest of the small and large intestines, the mucous membrane was intact. Examining the appendix from the outside, without removing the fibrin flake, one would not suspect serious lesion. The orifice was platulous. On cutting the appendix open, a small transverse whitish slough in the mucous membrane was found near the end, and in the bottom of the slough, covered on the outside by the fibrin, though not tightly, was a perforation the size of a small pin's head.

Without an autopsy it might have been supposed that this was a case of peritonitis due to infection through a diseased, but not perforated, gut wall. That the perforation in the appendix was the point of exit can, however, not be doubted, and though remarkable for the absence of some of the commonest symptoms of appendicitis, the case is not unique. I am quite certain that in another case, almost precisely like the one described, the conditions were the same, but neither operation nor autopsy could be obtained, so that the supposition could not be confirmed.

Cases of this kind, with sudden alarming symptoms, raise the question whether it is not our duty to operate. Without this the issue is hopeless, and although in most cases, by the time an operation could be made, the collapse is so great as to make all efforts futile, there is reason to believe that operations by experienced surgeons would occasionally save life.

**Peritonitis from Ligation of the Appendix**

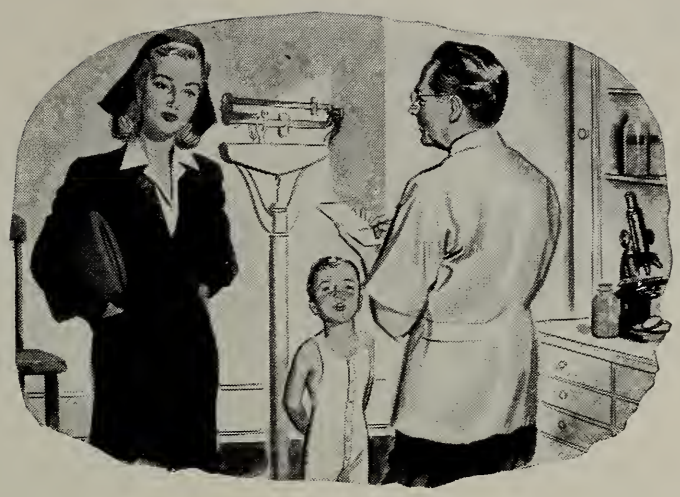
The common practice of ligating the appendix has always seemed to me wrong in theory, and an observation not included among the first eighty cases hardens me in that belief.

The idea seems to be that, when the appendix is ligated, and the end beyond the ligature cauterized or otherwise sterilized, the stump will cicatrize and the end either come away and be absorbed or its nutrition will be kept up by new-formed vessels from the proximal part. No doubt if the mucous membrane were separated perfectly, as the inner coats of the artery were supposed to be in ligation, or if the adjacent mucous surfaces ulcerated and became adherent, this mode of healing might take place. But it seems to me that there is considerable doubt in any given case whether such a result will occur. If the perfect occlusion did not take place, we would have the risk of infectious material passing out into the peritoneum. When I have mentioned these misgivings to surgeons, I have been pointed to the common practice of treating the stump in ovariotomies, even when the tubes are ligated. But the tubes seldom contain such numbers of virulent micro-organisms as the intestine does.

The case in point was one in which laparotomy was done for ovarian tumor. The appendix was closely adherent to the growth, was torn in loosening it and was ligated after thorough sterilization of the end. The woman did well for nearly a week and then died a few minutes after the occurrence of pain in the heart region and left shoulder, with feeling of suffocation. The cause of this was found on autopsy to be a recent thrombus in the right coronary artery, due to extensive atheroma. (It was afterwards learned that the woman had had similar anginose attacks, at long intervals. There was no evidence of heart lesion before death.)

The laparotomy wound and the seat of the

*(Continued on Page 356)*



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(1) 1926. U. S. Dept. of Commerce, Bureau of Fisheries, Document No. 1000.
1934. U. S. Pub. Health Reports 49, 754.
1937. U. S. Dept. Agr. Misc. Publ. No. 275.
1938. Food Research 3, 549.
1939. U. S. Dept. of Commerce, Bureau of Fisheries Investigational Report No. 41.


**The Seal of Acceptance denotes that the nutritional statements in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.**

*(Continued from Page 354)*

operation were in perfect condition, with healing far advanced.

The stump of the appendix was in contact with the lower part of the rectum. Around it was about 1 c.c. of yellow pus, which was removed and covers made at once for staining. The ligature (catgut) had ulcerated into the mucous membrane for about 4 mm. There was no attempt at covering over the ligature by exudation from the serosa. The pus contained large numbers of bacteria, including four kinds of bacilli, one of which was probably the common colon bacillus. At any rate the variety of forms makes it certain that the organisms came from the intestine, and were not introduced at the operation.

Owing to the accidental death, the infection was of no consequence. Had the patient lived longer, she would have had general peritonitis, most probably (there were no limiting adhesions), or at best circumscribed suppuration, with rupture into the rectum and the suspicion of infection at the operation.

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## IN TIME OF WAR WE MUST PREPARE FOR PEACE

To the realistic observer there is ample evidence that the economics of private medical practice is rapidly changing. The government, under stimulus of the emergency, has expanded its functions and activities to the point where there is hardly any distinction between the usual concept of public health and individual medical care. If these broadened measures serve to strengthen home morale and help bring about the defeat of insatiable aggressors, then in the interests of the nation and its allies organized medicine considers it a sacred privilege to coöperate with every legitimate agency in an effort to do the job smoothly and efficiently. There can be no compromise with Patriotism.

However, in an all-out endeavor to win the war, let us not sacrifice needlessly professional freedom when the struggle is over. Wars always bring permanent social reforms. Some are good, others not so good, and still others distinctly bad, depending upon the intelligence, sincerity, and ability exercised by leaders. In the end, however, social changes are the outgrowth of demands of the masses. In a democracy the citizens themselves shape the destiny of their institutions.

The corollary is obvious. The physician has an important function in popularizing the ideals and aims of American Medicine, its nature and achievements under free enterprise, its service to the individual, the community and to society as a whole. Simple truths told to every patient by every physician, when the opportunity presents itself, in simple language in favor of our present system will be more effective than any oratorical harangue against the American Medical Association by misguided crackpots and professional reformers.

In this connection it is well to remember that the National Physicians Committee for the Extension of Medical Care is attempting to disseminate information on American Medicine through many channels. This Committee deserves the support and assistance of every physician. In the light of the Nine Freedoms which President Roosevelt has enunciated in his recent message to Congress few will question the necessity of widespread public appreciation of medical achievement under a system of free enterprise.—*Nebraska State Medical Journal,* April, 1942.

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## BIRTH RECORDS IN WAR PERIOD

"The old belief," says the *Medical Record,* "that in and after a war more boys are born than in normal times was confirmed by the experience of the first world war. During the last years of that war, and for some years afterward, the proportion of male births increased over the average figure, which is about 106 live male births to every 100 live female births. . . . Today, two reasons have been found to explain the higher male births in the years after a war. One is the fact that, as a consequence of the high number of marriages contracted after wars, the number of first-born children increases and that among the first-born the rate for boys is especially high in all countries. The second reason is the decrease of miscarriages after wars, due to the high desire for more children. This means a higher male rate among live births, because among stillbirths and miscarriages there is a much higher proportion of males than among live births. According to the latest data, for every 1,000 live births in the United States there are thirty-two stillbirths, eighteen males and fourteen females, or a sex ratio of 128 males to 100 females. These are explanations which seem probable but the problem has not been solved entirely so far."

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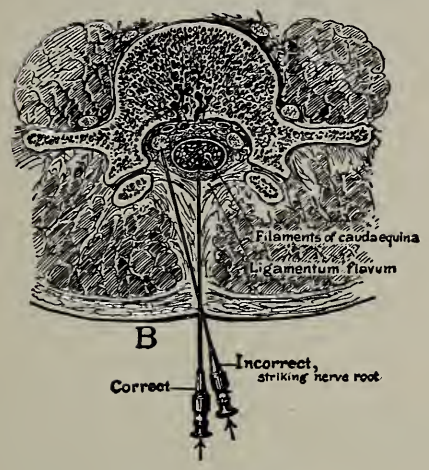


*Lumbar Puncture*

• From *The Modern Treatment of Syphilis*, by Joseph Earle Moore, M.D. Charles C. Thomas, Springfield, Ill., and Baltimore, Md., 1933. By courtesy of author and publisher.

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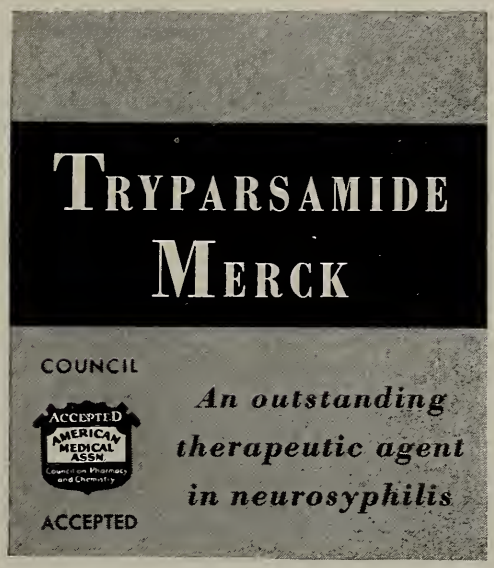
*LITERATURE ON REQUEST*

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# MICHIGAN PHYSICIANS IN MILITARY SERVICE

The following list is supplementary to the one which was published on pages 272 to 278 of the April issue of THE JOURNAL. The list is made up from various reports received by the State Society, and it is recognized as incomplete. Corrections, changes or additions to the list are solicited as it is desired to list insofar as is possible the name and address of every Michigan doctor of medicine who is serving his country with the armed forces.

*Barry—*
Lt. Com. K. S. McIntyre, Navy Medical Corps, Pensacola, Fla.

*Berrien—*
Robert Reagan, M.D., Great Lakes Base Hospital, Great Lakes, Illinois

*Calhoun—*
Lieut. R. J. Campbell (Navy), Portsmouth, Massachusetts

*Chippewa-Mackinac—*
Wm. Birch, M.D., Fort Custer
L. J. Hakala, M.D., on duty with the U. S. Public Health Service

*Jackson—*
Lt. Com. Edward D. Crowley, Navy Medical Corps, Pearl Harbor, T. H.

*Kalamazoo—*
Charles O. Holder, M.D., Kalamazoo Induction Center, Kalamazoo

*Kent—*
J. Donald Flynn, M.D. (Navy), Navy Pier, Chicago, Illinois
C. D. Klaus, M.D. (Navy), Navy Pier, Chicago, Illinois
Millard Shellman, M.D. (Navy), Naval School, Bethesda, Maryland

*Lenawee—*
W. T. Claxton, Lt. MC, Fort Sill, Oklahoma

*Macomb—*
R. F. Salot, M.D., Navy Medical Corps (home address, Mt. Clemens)

*Muskegon—*
Lieut. A. F. Dasler, Navy Medical Corps, Great Lakes, Illinois

*Oakland—*
Donald M. Hoyt, M.D., Navy Medical Corps (home address Pontiac)
Donald S. Smith, M.D., Navy Medical Corps (home address Pontiac)

*Ottawa—*
H. P. Harms, M.D., Navy Medical Corps, San Diego, California

*St. Joseph—*
Martin F. Buell, M.D., U. S. Public Health Service, Bethesda, Maryland

*Tuscola—*
Frank J. Gugino, Lieut. Navy Medical Corps, Great Lakes, Illinois

*Washtenaw—*
C. J. Buscaglia, Capt., M.C., Iceland
Kyril B. Conger, Lt., M.C., Randolph Field, Texas
Vivion F. Lowell, Capt., M.C., Columbia, S. Carolina

*Wayne—*
Louis Beresh, Army Medical Corps, Romulus, Michigan
Leslie Caplan, Army Medical Corps, Pine Bluff, Arkansas
K. K. Kimberlin, Army Medical Corps, Camp Jackson, S. Carolina
George J. Korby, U. S. Engineers, Honolulu, T. H.
Gaylord S. Bates, Lt. Com., Navy Medical Corps, Mare Island, Calif.
Harold J. Kullman, Navy Medical Corps, Great Lakes, Illinois
Stanley V. Laub, Lieut., Navy Medical Corps, U. S. Naval Academy, Annapolis, Md.
Peter G. Shifrin, Navy Medical Corps, Mare Island, Calif.

**Corrections:**

*Lenawee*—Perry Lynford Miller, Capt. M.C., is stationed at Camp McCoy, Wisconsin, instead of in Detroit.

*Wayne*—H. C. Jones, Lt. Com., Navy Medical Corps, is now at Portsmouth, Virginia, instead of Great Lakes, Illinois.

Robert K. Whitely, now a Captain in the Army Medical Corps was stationed at Manila, Philippine Islands, his last known address. He was erroneously reported as a Lieutenant stationed in Detroit.

Corrections, changes or additions to the above list will be welcomed and should be sent to the Michigan State Medical Society, 2020 Olds Tower, Lansing, Michigan.

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We face the crises of world conflict with an unflinching spirit, whether this be the members of the Michigan State Medical Society serving with combat troops and in base hospitals, or those of us on the home fronts serving the armed and civilian forces. It is our job to help provide the sinews of war—to buy and continue to buy Bonds for Victory.

To the immature digestive system that must consume food in quantities necessary for rapid growth, quality is of prime importance. Similac provides breast milk proportions of fat, protein, carbohydrate and minerals, in forms that are physically and metabolically suited to the infant's requirements. Similac dependably nourishes the bottle fed infant — *from birth until weaning.*

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## AMERICAN MEDICINE PREPARES FOR WAR

****No finer example of medicine's greatness as a power in National Defense, nor a greater indication of its solidarity, can be found than the evidence of coöperation which has been manifested during the last two years.

****There have been many problems and dislocations in the lives of members of the professions, routine of professional schools and hospitals and services in many communities. Selective Service for military service enjoins an equal responsibility upon all our male citizens; expansion of our military forces demands an increase in medico-military personnel and establishments. All these aspects of medicine's participation in National Defense have caused concern, and effective measures have been taken to clear up every problem in the interest of national and community health, medical education and military needs. In spite of these trying problems, during the last year or more, American medicine has forged armament for war.

****Almost constantly, for nearly two years, committees representing every phase of medicine have been in session at the National Research Council. Distinguished men serve on the ten main committees and the thirty-three subcommittees thereof. Exhaustive studies have been made on chemotherapy, transfusions, neuropsychiatry, aviation medicine, infectious diseases, tropical medicine, surgical infections and venereal diseases. The committee on medicine has subcommittees devoting study to important subjects, such as cardiovascular diseases, tuberculosis, metabolism, medical nutrition, clinical investigations and diagnosis and therapeutics. Surgery is represented by a strong and important group of subcommittees, namely, neurosurgery, plastic and maxillofacial surgery, otolaryngology, vascular injuries, orthopedic surgery, et cetera. Outstanding work has been done on shock and surgical infections. Every effort has been made to assist The Surgeon General by making available the most advanced and accepted approach to the medical and surgical problems confronting the Army in time of war.

Furthermore, this great group of distinguished and patriotic doctors has collaborated in the preparation of fourteen manuals on these important subjects. These manuals will be used in the training programs for the Medical Department of the Army and as the authorized standards in the practice of military medicine therein. This effort probably represents the greatest single project for the welfare of our nation and its Army in which medicine, dentistry and veterinary medicine have been participated.

****The Surgeon General is unquestionably supported by the entire medical profession in his responsibilities—actually, the responsibilities of the Nation—in the care of the sick and wounded in the military service. The American soldier has a right to expect adequate protection against disease, thorough treatment when sick or injured and skillful surgical care if wounded in battle. He anticipates either a return to duty or restoration to a place of independence in his home community and social circle.

****One of the most colorful chapters in the history of American Medicine was written at the Army and Navy bases in Hawaii on Sunday, December 7. During sixteen hours of heroic effort, Navy doctors and nurses, aided by assistants from Honolulu, labored untiringly in behalf of the 960 casualties, many horribly burned and wounded. At the Army Base, within a few minutes after the first bomb fell at 7:00 a.m., wives of officers and enlisted men were rushing to Hickam Field Hospital to assist the six nurses on duty at the time. Army doctors worked until they dropped from exhaustion. Large stores of plasma and other blood substitutes were used and their value was demonstrated beyond any question. The incalculable value of sulfonamide therapy was remarkable and kept the fatalities down to a remarkably low figure. All the huge effort to make chemotherapy a useful aid in treating war casualties proved the soundness of medicine's early preparation to meet war-time demands. Severe shock was observed and anti-shock therapy was imperative. Dr. Pinkerton, head of the Civilian Plasma Bank of Honolulu, had been highly commended for his prompt delivery of plasma and blood substitutes. John Moorhead, M.D., of New York, Perrin Long, M.D., of Johns Hopkins and I. S. Ravdin, M.D., of Pennsylvania assisted in the care of the

*(Continued on Page 362)*

Extracts from an address by Brigadier General Fairbanks before the Kent County Medical Society, February 10, 1942.

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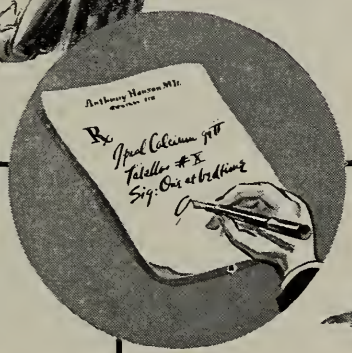

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*(Continued from Page 360)*

wounded or observed the results of the prompt and efficient work of the Medical Department personnel. Truly, the careful planning and stupendous efforts of American medicine in its National Defense efforts were repaid many times over in the results secured in the care of the Hawaiian casualties.

****The primary objective of the Procurement and Assignment Service is to maintain a complete list of all physicians, dentists and veterinarians of the entire country with detailed information as to age, physical condition, professional qualifications and availability for service in the various military, civil and industrial agencies of the country. This information has been tabulated on punch cards. All agencies of the Government which utilize the services of physicians, dentists and veterinarians will make requisition upon the Procurement and Assignment Service for personnel. These requisitions will state the age, professional qualifications and the physical condition of these professional people whose services are desired by these agencies. Lists will be prepared from the rosters and forwarded to the requisitioning agency. These agencies will then enlist the services of these professional people. At the same time, the Procurement and Assignment Service will notify the people whose names have been tendered to the requisitioning agency that they have been chosen to enter upon their new duties.

Through the various committees serving the Procurement and Assignment Service, surveys are rapidly being made of all the facilities of the United States. For example, every hospital will be canvassed and they will be asked to state the minimum number of professional people required to maintain adequate care of the sick of these institutions. In the same manner, the needs of school faculties, industrial organizations, national, state and county health organizations, and other agencies, both military and civil, will be surveyed.

****Laying aside all personal desires and ambitions, our task is one which calls for devoted service and willing sacrifice. As the healing power which must combat the destructive forces unleashed by this terrible war, American medicine will unselfishly answer the demands of our beloved nation as it faces the grave dangers and tragic uncertainties ahead.

**LET'S ALSO REMEMBER OUR INTERNAL ENEMIES**

While heeding the war cry "Remember Pearl Harbor" and going all-out as a profession in our nation's war effort, let's also remember that the perennial enemies of good medical practice inside the United States are still with us. There is ample evidence that these enemies are just as active as they were three or four or five years ago.

Washington still contains that same coterie of "uplifters" who like to uplift with O.P.M.—in this case an abbreviation for Other People's Money—who publicize the idea that they are uplifting the masses of the people but whose deeds contrast with their words when they primarily uplift themselves and their friends into bureaucratic political machines. It is perhaps unfortunate that the President could not be specific when he assailed Washington "parasites." We could point out a few for him.

Colorado still contains its advertising charlatans, its chiropractic radiocasters, its fraudulent petition circulators who perennially would like to tinker with the State Constitution and open the practice of the healing arts to the quacks of all kinds. Utah still has the same problem, complicated by the ridiculous action of a legislature which authorized "naturopaths" to diagnose and treat under Workmen's Compensation Laws. Wyoming is not exempt.

And all of these states have their quotas of long arms reaching out from the master "uplifters" in Washington, driving in a wedge here, a salient there, inching their way farther and farther into medical practice to the detriment of good practice, basically spelling poor health for both the public and the medical profession in the future. These internal enemies of the American way of life have not "converted their plants to war production." On the contrary, they see in this war an excellent opportunity to entrench themselves even deeper—while we and the whole public, all lumped together as Mr. Taxpayer, have our eyes fixed steadily in another direction—on war work.

Yes, let's remember Pearl Harbor and Manila and let's look straight at the job of winning the war. But if we keep our eyes wide open, out of one corner at least we can spot what our internal enemies are doing. Let's guard carefully against their insidious bribery with "federal" funds—which come right out of our own patients' pockets and are not more "federal" or remote than our own purses. Let's remember that 1942 is an election year, war or no war, and that cultists may try some new tricks. Let's keep ever in mind that while the rest of us are primarily interested in the war effort, it will be "business as usual" for all the enemies of the American way of life, including the enemies of good American medicine.—*Rocky Mountain Medical Journal,* March, 1942.

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, March 25, 1942—Bay City—Speaker: Wm. S. Reveno, M.D., Detroit—Subject: "Metabolism."

*Berrien*—Thursday, April 16, 1942—Benton Harbor—Speaker: Major C. I. Owen, MC, Lansing—Subject: "Medical Aspects of the Selectee."

*Calhoun*—Tuesday, April 7, 1942—Battle Creek—Speaker: Herman H. Riecker, M.D., Ann Arbor—Subject: "Undulant Fever."

*Clinton*—Monday, April 13, 1942—St. Johns—Joint meeting with members of the County Bar, and Pharmaceutical organizations—Speaker: Mr. C. W. Otto, Lansing.

*Dickinson-Iron*—Thursday, April 2, 1942—Iron River—Speakers: Drs. Banbury, Itzov and York.

*Genesee*—Tuesday, March 24, 1942—Flint—Speaker: Mr. Russell V. Somes, Chief Air Raid Warden of Flint—Subject: "National and Local Civilian Defense Preparations."

Wednesday April 8 and April 15—Postgraduate Conferences.

*Hillsdale*—Thursday, March 26, 1942—Hillsdale—Speaker: F. J. Weber, M.D., Lansing—Presentation of sound, color movies on Diagnosis and Treatment of Syphilis.

*Ingham*—Tuesday, April 21, 1942—Lansing—Speaker: N. F. Miller, M.D., Ann Arbor—Subject: "Cervicitis."

*Kalamazoo*—Tuesday, April 21, 1942—Kalamazoo—Speakers: S. Milton Goldhammer, M.D., and Jean P. Pratt, M.D., Detroit—Subjects: "The Therapeutics of Whole Blood, Plasma and Serus" and "Estrogenic (steroid) Hormones."

*Kent*—Tuesday, April 14, 1942—Grand Rapids—Speaker: Carl Beeman, M.D., Grand Rapids—Subject: "Shock."

*Muskegon*—Friday, April 17, 1942—Muskegon—Speaker: Loyal Davis, M.D., Chicago—Subject: "Neuro-Surgery."

*Oakland*—Wednesday, April 1, 1942—Rotunda Inn—Speaker: A. C. Furstenberg, M.D., Ann Arbor—Subject: "Modern Treatment of Diseases of the Nose and Throat."

*St. Clair*—Tuesday, March 24, 1942—Port Huron—Business Meeting.

Tuesday, April 7, 1942—Imlay City—Special Meeting with Lapeer County Medical Society—Speaker: Frank Van Schoick, M.D., Jackson—Subject: "Nationwide Program of Immunization Against Smallpox and Diphtheria."

Tuesday, April 14, 1942—Port Huron—Business Meeting.

*St. Joseph*—Thursday, April 9, 1942—Constantine—Speaker: Milo K. Miller, M.D., South Bend, Indiana—Subject: "Pediatrics and Allergy."

*Shiawassee*—Thursday, March 19, 1942—Owosso—Speaker: Francis J. Murphy, M.D., Detroit—Subject: "Advances in Anesthesia."

Thursday, April 16, 1942—Owosso—Speaker: Wallace Teed, M.D., Ann Arbor, Subject—"Concealed Mastoiditis."

*Washtenaw*—Tuesday, April 14, 1942—Ann Arbor—Program: The Physician and Emergency Medical Service, Civilian Defense—Reports of Local Directors. Chairman. Warren E. Forsythe, M.D.

*Wayne*—Monday, April 27, 1942—Detroit—Speaker: John S. Lockwood, M.D., Philadelphia, Subject—"The Use of Sulfonamides in Surgery."

Monday, May 4, 1942—Detroit—Annual Meeting—Election of Officers, West Side (Detroit)—Wednesday, March 18, 1942—Detroit—Speakers: O. A. Capano, M.D., Frank A. Lamberson, M.D., Eugene W. Secord, M.D., and Edward F. Ducey, M.D.

## COUNCIL AND COMMITTEE MEETINGS

1. Executive Committee of The Council with Michigan Crippled Children Commission—Wardell Hotel, Detroit—Thursday, April 2, 1942—4 p.m.
2. Executive Committee of The Council—Hotel Olds, Lansing—Thursday, April 9, 1942—3 p.m.
3. Medical Preparedness Committee—Wardell Hotel, Detroit—Monday, April 27, 1942—6:30 p.m.
4. Committee on Distribution of Medical Care—Olds Hotel, Lansing—Wednesday, May 6, 1942—3:00 p.m.
5. Syphilis Control Committee—Olds Hotel, Lansing—Sunday, May 10, 1942—5:00 p.m.
6. Executive Committee of The Council—Wardell Hotel, Detroit—Thursday, May 14, 1942—4:30 p.m.

## TWENTY-EIGHTH ANNUAL GOLF TOURNAMENT

The American Medical Golfing Association will hold its twenty-eighth annual tournament at Seaview Country Club, Atlantic City, on Monday, June 8. Forty trophies and prizes will be awarded.

### *Fellows in Every State in the Union*

Harry E. Mock, M.D., of Chicago, is president, and John B. Morgan, M.D., of Cleveland, and H. V. Hubbard, M.D., of Plainfield, New Jersey, are vice presidents of the A.M.G.A. which was organized in 1915 by Will Walter, M.D., Wendell Phillips, M.D., and Gene Lewis, M.D., and now totals 1,651 members representing every state in the Union.

### *Two Eighteen-hole Championship Courses*

Seaview Country Club at Absecon, New Jersey, has two eighteen-hole championship courses as well as another sporty course through the woods. The clubhouse, where the golfers' banquet will be held at 7:00 p.m. on June 8, is one of the most elaborate in the country, featuring a tremendous indoor salt-water pool. The 250 bedrooms for guests will be available to A.M.G.A. Fellows who may write Walt P. Conaway, M.D., Chairman of the Atlantic City Golf Committee, 1723 Pacific Avenue, Atlantic City, New Jersey, for reservations.

### *Application for Membership*

All male Fellows of the American Medical Association are eligible and cordially invited to become members of the American Medical Golfing Association. Write Executive Secretary Bill Burns, 2020 Olds Tower, Lansing, Michigan, for an application blank. Participants in the American Medical Golfing Association tournament are required to present their home club handicap, signed by the club secretary, at the first tee on the day of play. No handicap over thirty is allowed. Only Active Fellows of the American Medical Golfing Association may compete for prizes. No trophy is awarded a Fellow who is absent from the annual dinner.

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The next examinations by the Michigan Board of Examiners in the Basic Sciences will be held on Friday and Saturday, June 12 and 13, 1942, at Detroit and Ann Arbor. Applications should be made to Miss Eloise LeBeau, 101 N. Walnut Street, Lansing, Michigan, no later than June 1.

# IN CONDITIONS OF *Excitement* OF THE NERVOUS SYSTEM

Luminal and Luminal Sodium exert a pronounced sedative and antispasmodic action. Hence, they are extensively employed for symptomatic relief in conditions characterized by excitement of the nervous system. These include epilepsy, nervous insomnia, neurasthenia, hyperthyroidism, cardiac and gastric neuroses, hypertension, dysmenorrhea and disorders of the climacteric.

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## TUBERCULOSIS—A FOE ABLE TO FIGHT

Prognosis in tuberculosis depends on a willful combination of factors, chief favorable one being early diagnosis. Mass search has produced startling results in driving tuberculosis from first place down to seventh among national death causes. Outstanding in this field is the work proceeding in many colleges and universities. Individual practitioners must not decide that modern methods succeed only in community surveys or remain the exclusive implements of specialists. Nor must medicine strengthen its techniques only during periodic national emergencies.

Tuberculin test, x-ray, with painstaking clinical, laboratory, epidemiological follow-up of patients and contacts are available to every physician. To wait for consumptive symptoms or to rely primarily on the stethoscope is to diagnose late—inexcusable in the light of common knowledge and professional obligation. Based on the mistakes and unfortunate results of World War I, present induction chest surveys are encouraging but still need universal adoption if all citizens are to benefit.—Charles E. Lyght, M.D., Northfield, Minnesota. (See page 377.)

## THE DIAGNOSIS AND TREATMENT OF PLACENTA PREVIA

The incidence of placenta previa among 14,569 deliveries at the University of Iowa was 1:204. Sterile vaginal examination represents the only *certain* method of diagnosis, although bladder cystograms are helpful. The more severe grades of placenta previa tend to produce symptoms during the third trimester of pregnancy and cause prematurity, since delivery should generally follow the establishment of the diagnosis.

The method of treatment varies, but excellent results may be obtained by spontaneous labor and scalp traction in more than three-fourths of all cases. Manual dilation of the cervix has no place in the treatment. Vaginal packing and Braxton Hicks version should be employed only when other facilities are not available. Blood transfusion is the most important single factor in treatment.—William F. Mengert, M.D., Iowa City, Iowa. (See page 382.)

## LOCALIZATION—AN AID IN THE DIAGNOSIS OF CONTACT DERMATITIS

From the response to a questionnaire which was sent to leading allergists and dermatologists and from my own experience, diagrams are presented which show the most common localizations of contact dermatitis, the site of which is indicative of the causative agents. Their perusal readily facilitates a causative diagnosis in many instances. Occupational, medicinal, and plant dermatitis do not assume a typical localization. The factors determining localization in contact dermatitis are discussed. In general the site of the first lesions is at the approximate positive contact with the offending material.—George L. Waldbott, M.D., Detroit, Michigan. (See page 392.)

## TRAGEDY

Eighty-seven years ago a male infant was born in a farmhouse in east central New York State. He was destined to be a follower of Aesculapius and Hippocrates and he finally entered the University of Michigan Medical School, graduating from there fifty-eight years ago.

Then came eight years of general practice in the farming community near where he was born—enduring the hardships of the long winters with travel by horseback or on foot and the rather precarious existence of a general practitioner of that era.

Motivated by a desire to be more expert in certain lines, he moved to New York City and spent nine years specializing in diseases of the eye, ear, nose and throat under the tutelage of the best men of the times in that metropolis. Finally, he considered himself capable of doing good work alone in his chosen specialty and moved to the great Midwest where he practiced long and faithfully.

This devotion to his work reaped a fairly decent harvest. He owned his home and a car and had two daughters in college. But the rigors of his early life and the never-ending duties of a physician began to take their toll in the inexorable passage of the years. There came at this time what seemed to be an excellent chance to build his life's savings into a fund sufficient to take care of him and his spouse in their declining years.

The Old Lady with the Scissors decided to have it otherwise and, just short of the amount he had planned on being a sufficient profit to accomplish what he had in mind, the market dropped to the cellar and all of his long and painfully acquired assets were wiped out.

Of sturdy stock, he bore up better than the average human being could have done and still the shoulders began to droop and become a little more rounded as the days went by. With his car gone, he had to walk to and from his office, twice a day and thus he became a familiar figure along his daily route, stooped over more and more and carrying the insignia of the physician—the little black satchel.

*(Continued on Page 368)*

# These are the Reasons why we say "Try S-M-A"

- Physicians will find that S-M-A* is not a "compromise formula." It is a complete milk formula for infants deprived of human milk.
- Cows' milk fat is replaced with the unique S-M-A fat for easy digestion and adequate nutrition. It compares physically, chemically and biologically with the fat in human milk.
- The carbohydrates in S-M-A and human milk are identical.
- With the exception of vitamin C, the vitamins essential to normal growth and development ($B_1$, D, and A) are included in adequate proportion in S-M-A ready to feed.
- Furthermore, iron (so difficult to provide for the bottle-fed infant) is included in S-M-A. When prepared each quart provides 10 mg. iron and ammonium citrate.

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Excellent results with hundreds of thousands of infants is reason enough why S-M-A is the choice of a steadily increasing number of physicians.

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*S-M-A, a trade mark of S.M.A. Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

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*(Continued from Page 366)*

Some people wondered what the old man carried in the satchel and most of them naturally supposed it contained bandage scissors, a few instruments, some rolls of bandage, cotton and adhesive, little labelled bottles of pills, a stethoscope, tongue blades and possibly a blood pressure apparatus.

Then came a day—one week before his thirty-fourth wedding anniversary which was also the day he would have been halfway to his eighty-seventh birthday. It was icy underfoot and his slowly dimming eyes could not see all the safe places. A slip, a crash, and the doctor lay on the sidewalk with a broken hip while the mysterious black bag with its frayed edges and battered corners lay twenty feet away, sprung open by the force with which it fell.

Two men, one a neighbor and one a passing motorist, helped him into his home two doors away. The neighbor picked up the bag, the problematical contents of which had often caused him some speculation and at last he found what was in it:

Nothing! Not even a complete lining!

Men do not grow old gracefully as do most women—particularly medical men. They put up a terrific battle against admitting that the years are telling on them, to their own discredit more often than not. Few of them have any financial sense or ability and seldom has there been any nest egg laid away for the twilight of life so they can rest deservedly and serenely.

This same lack of financial acumen probably explains why the medical profession, the closest knit known body of presumably intelligent men, has, unlike almost every known lodge or fraternal body in the United States, never formulated any plans to take care of its ancient or decrepit brethren. It has been so busy making money for the present, striving to attain and maintain an individual social level, taking postgraduate work, buying books and instruments and fighting the invasion of the cults, that it has lost sight of the future.

In the ethical pursuit of the practice of medicine every other doctor is a friendly competitor as a rule. Even the friendliest competition is time consuming and each doctor is prone to think of his work and his life in terms of only himself and his family. The most probable instantaneous reply one would get from a doctor if he were asked about state-wide old age pension for doctors would be: "Am I my brother's keeper?" and to this he would probably add: "There will never be a need for it as far as I am concerned because I am too smart to let it happen to me."

Let us hope that no more Jackson doctors will have to trudge wearily to their office, with house and office rent in arrears, trying to be independent and make a living at eighty-six and a half years, carrying the honored black bag to make the bluff at success complete and then go down with a crash for casual passersby to pick up and find the medicine bag—

EMPTY!

—*The Bulletin of the Jackson County Medical Society,* March, 1942.

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**PAPER PHOBIA**

Few words in the medical lexicon carry as much contempt as the phrase: "paper-work." Every doctor who serves the government, a social agency, an insurance company, or an industrial plant complains that he is strangled by paper-tape, and protests the need for monotonous entry and re-entry of data on complicated printed forms.

The doctor's ready answer is to abandon the "paper-work" to some clerical assistant. This, he feels, frees him for the diagnosis and treatment of illness. But the matter is not so simple. The assignment of such work to medically untrained personnel invites errors, blurs the physician's own grasp of the distribution of his findings, and makes one more inroad in the already too common tendency to divert medical procedures into non-medical hands.

There is something to be said for the bogey of paper-work after all. It is a practice which builds up habits of precision, forces a certain amount of orderliness into the writer's thinking, and arouses a consciousness of the fact that the individual physician's task is only one part of a greater job. For instance, the physician who carefully fills in all the blanks on a death certificate is compelled to organize his diagnostic terms into some standard nomenclature. When a certificate is returned because "apoplexy" is not an acceptable work, and "thrombosis" or "hemorrhage" or "embolus" is the approved term, the doctor has to pause a moment, weigh the possibilities of embolus, hemorrhage and thrombosis, and determine which most closely conforms to the clinical picture. It is not a bad discipline; certainly it discourages the slovenly thinking which would dismiss the death as "apoplexy."

The mere recording of data on a communicable disease report form symbolizes the fact that this one case is but a single item in the flow of copy to a health department, and is a fragment of the battery of findings on which all our vital statistics are built. The construction of valid statistical data, in turn, is the basis for life insurance rates, an orientation point for health department activities, a brief for health-minded legislators, and a yardstick for measuring the adequacy of the community's medical care. Our entire structure of vital statistics—and all the services and activities which stem from them—would tumble in a year if individual doctors failed to submit accurate reports of births, deaths and illnesses.

The doctor who serves an Old Age Assistance Board, a City Relief Department or any other government agency is inclined to grumble at the elaborate forms which he has to fill in order to collect his fee. Yet the entire machinery of governmentally-subsidized medical care would stall without the statistical foundation on which the budget allotments are based; and these in turn, are built up by the accumulation of the much abused forms.

The distribution of potent drugs like the opiates, barbiturates and sulfonamides, can be regulated only by limiting their prescription to physicians. But concurrent with the monopoly thus given to the doctor, is a duty to restrict the distribution of these drugs, which is possible only by a kind of professional policing which requires much paper work.

This is not to deny that the geniuses who construct the blanks and questionnaires are often at fault for arranging the forms badly and for demanding unnecessary details. But to respond by ignoring the blanks or by submitting carelessly framed answers is no solution.

In this day of increasing governmental interest in the physician's activities, the doctor who is careful, patient and thorough in the routine task of filling out forms is the one who builds up in the official files a personal record for reliability, meticulousness and accuracy. The physician who submits forms dotted with illegible scrawls or yawning with wide open spaces, enters himself in the books as hasty, careless or inaccurate: an unjustified conclusion to be sure, but an inevitable one.

Birth certificates, commitment papers, sick lists, quarantine reports, communicable diseases notifications, death certificates, narcotic registration applications, prescription blanks, questionnaires, disability reports, and all the other time-taking ink-absorbing jobs are petty nuisances. But they need not stand in the way of the doctor's personal or professional progress; after all, no practitioner worthy of his license will let himself be stymied by a wall built of nothing more substantial than a wad of paper.—*The Journal of the Medical Society of New Jersey,* February, 1942.

The JOURNAL
of the Michigan State Medical Society
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Volume 41 May, 1942 Number 5

# The Medical Department of the Army in War*

By Major Roger G. Prentiss, Jr.
Medical Corps, U. S. Army
Washington, D. C.

You are well aware of the heavy demand which the present war will place upon the medical profession. This demand will affect each one of you. Your mode of life will inevitably change in some respects. This is total war, not a war of professional armies. The time for "business as usual" is past for our profession just as it is past for industry.

Sacrifice of personal interest for the nation's benefit is not a new experience for the doctor. He has played an important role in the defense of his country throughout the history of the United States. Many of our military leaders in the Revolution were drawn from the medical profession. Since those days the doctor's military activities have been confined increasingly to medico-military functions. Each emergency has found him and his profession eagerly alert to make its contribution to the country's defense. Each emergency has asked greater sacrifice because of the increased proportion of population directly involved in conflict. Now, with the advent of total war, we find every member of the medical profession, wherever he may be, subject to call in some capacity. The demand for medical personnel is not confined to the Federal services but must include the care of the entire civil population. There is no pool of excess medical personnel in the nation and none can be developed in a short time. Increasing the size of the Army and Navy will require more and more physicians but there is a limit beyond which we cannot go. The civil population must continue to receive adequate medical care. Industrial medicine demands increased attention and Public Health cannot be slighted.

The medical problem is thus of nationwide extent. No one agency can be considered to the exclusion of all others. Physicans must be judiciously apportioned. I shall attempt to tell you something of the needs and problems of the Medical Department of the Army.

The United States has not been a military nation. Our regular Army prior to the present emergency was relatively tiny. It was seventeenth in size among the nations of the world. Let us consider the statistics prior to the period of expansion. On July 1, 1939, our Army numbered approximately 174,000 enlisted men and 13,000 officers. Only 1,210 of those officers were members of the Medical Corps, that is, were doctors of medicine. At the time war was declared on December 8, 1941, the Army had already been expanded nearly tenfold so that it included approximately 112,000 officers and 1,500,000 enlisted men. This expansion has continued. At the present time the Medical Department alone includes the following approximate totals of officers:

| | |
|---|---|
| Medical Corps | 12,000 |
| Dental Corps | 3,300 |
| Veterinary Corps | 750 |
| Sanitary Corps | 250 |
| Medical Administrative Corps | 1,500 |
| Army Nurse Corps | 8,000 |

Large as those figures may seem they represent only a beginning. It is estimated that the minimum requirements in 1942 for medical officers alone will be approximately 28,000. This includes the 12,000 now on duty. In addition

*Read before the Procurement and Assignment Meeting in Detroit sponsored by the M.S.M.S., and P. R. Urmston, M.D., as Michigan member of the Procurement and Assignment Committee for the Sixth Corps Area, on March 10, 1942.

there will be required over 6,000 dental officers and approximately 18,000 nurses.

The need for personnel in 1943 will be even greater. It is impossible to state the exact number of medical officers who will be required because this is based on a number of factors. In a general way the allowance of medical officers is roughly 6.5 for each 1,000 of military population. This ratio, however, may vary widely, dependent on the nature and location of military operations. A rough comparison of our coming needs may be arrived at by recalling that in the First World War we had 31,000 medical officers in service with a maximum strength of the Army of a little over 3,500,000.

The allowance of physicians in the Army may seem excessive when one considers our ratio of 6.5 per 1,000 in comparison with 1.5 per 1,000 in civil life. Why is this high ratio necessary? It is because the responsibilities and activities of the Medical Department extend far beyond the mere treatment of sick and wounded.

Hospitalization alone is a mammoth project. Army hospitals in this country now provide a total bed capacity of about 108,000. These hospitals are of two principal classes. At each military station there is a hospital known as a Station Hospital. This hospital provides bed capacity of four beds for each 100 of the military population of that station. These station hospitals may vary in size from 25 beds to as many as 3,000 beds. There are at present over two hundred Station Hospitals. In addition there are fifteen General Hospitals located at convenient points throughout the country. These General Hospitals vary in size from 500 beds to 2,000 beds. Their purpose is to furnish care for patients requiring very lengthy or highly specialized treatment.

These Station Hospitals and General Hospitals do not differ materially from civil hospitals. However, the types of patients do differ greatly. Military personnel is a highly select group of young men in good physical condition. Therefore, the cases prior to combat will be largely of an acute rather than a chronic nature, and inflammatory rather than degenerative. Furthermore, many of the patients will have very mild illnesses such as would be treated in their homes in civil life. In the Army a sick soldier cannot be left in his quarters. This fact accounts in considerable part for the large bed capacity needed.

These hospitals are considered normally to be hospitals of the Zone of the Interior. This term may not be familiar to all of you. A military force in time of war is disposed in three parts—the Combat Zone, the Communications Zone and the Zone of the Interior. The Combat Zone and the Communications Zone combined, constitute a Theater of Operations. The Zone of the Interior, usually the home territory, furnishes the Theater of Operations the munitions, supplies and men required, and assumes the care of the noneffectives returned to it. It is not always easy to determine where one area stops and another begins. In the First World War the division was very simple: France was the Theater of Operations, the United States was the Zone of the Interior. Now there may be many Theaters of Operations, in fact some may be present in the continental United States.

Hospitalization in a Theater of Operations is quite different from that in the Zone of the Interior. General Hospitals and Station Hospitals will be found in the Communications Zone but they will be more primitive than those of the Zone of the Interior. They also have a much more formidable task since they must care for actual battle casualties returned from the Combat Zone. Many of these hospitals will be staffed by Affiliated Medical Units. Their number may become very large since in a Theater of Operations hospital bed capacity must be provided for from 12 to 15 per cent of the military strength in that theater.

Still different medical units and hospitals are found in the Combat Zone. These include Medical Detachments, Medical Battalions, Surgical Hospitals, Evacuation Hospitals, Medical Depots and Medical Laboratories. All of these must be staffed and operated by Medical Department personnel.

All of the medical installations in a Combat Zone are mobile in nature. They must be able to move rapidly and on short notice. Their function is to furnish first aid and emergency treatment. Definitive treatment is delayed until arrival of casualties at a General Hospital. Let us briefly trace a battle casualty through the various steps in his evacuation. When wounded he receives first-aid treatment in the Battalion Aid Station located very close to the front line.

This aid station is operated by medical personnel attached to his own regiment. He is next taken over by the medical battalion which is part of his division. Litter bearers carry him from the Battalion Aid Station to the Collecting Station, a distance of from one half to one mile. Treatment here is still merely of a first-aid nature. However, it does include the institution of sulfonamide therapy if this has not already been done at the Battalion Aid Station. Some shock treatment may be given, possibly including the administration of plasma.

The casualty is next transported by ambulance to the Clearing Station which is also within the divisional area and operated by the medical battalion. This station is equipped to give more elaborate shock treatment but no actual surgery is performed. Patients are prepared here for evacuation to the rear. As soon as possible they are transported by ambulance to an Evacuation Hospital. Some casualties would be nontransportable. These may include head, chest and abdominal wounds. These patients might be diverted to a surgical hospital located in the vicinity of the Clearing Station. The functions of the Evacuation Hospital and Surgical Hospital are similar. Both give emergency surgical treatment. As soon as possible patients from them are transported to General Hospitals in the Communications Zone where definite treatment is given.

Many persons have tended to put emphasis on the definitive surgical treatment of battle casualties. If this was the only problem in the medical service of the Army our cares would be much lighter. Actually it is but a small part of the picture. The fate of the wounded soldier depends on skilled care from the moment he first receives his wound. Skilled first-aid care and proper handling are even more vital than surgery at a later date. It is here that lives may be saved. Young medical officers assigned to medical detachments and medical battalions must carry the burden of field medical service. Their training covers that of a new profession. They must be versatile in the handling of all manner of medical and surgical emergencies. They must possess leadership since they will control the activities of the Medical Department enlisted men. They must be versed in sanitation since the health of their organizations is dependent largely on their efforts. The success or failure of field medical service is dependent on these young officers.

No young physician is prepared to enter the military service from civil life and deal adequately with the problems of a medical officer in the field. He must receive long and arduous training with his organization so that when the moment of combat arrives he will be prepared to play his part in the military operation. He can play that part only by being completely familiar with the activities of the other members of the military team. During the period of training much of his time will be devoted to medico-military rather than strictly professional subjects. He must train his enlisted men so that they will function efficiently in combat. When that time comes work will tax to the utmost his stamina and good judgment. Intelligent supervision of the first-aid treatment and handling of battle casualties during evacuation clearly demands an alert and highly trained medical officer. He may minimize deaths from shock and hemorrhage, prevent many disabling after results from wounds, and deliver patients to Surgical and Evacuation Hospitals in the best operative condition. No layman can possibly measure up to these requirements.

The duties of medical officers in Surgical Hospitals, Evacuation Hospitals, and General Hospitals will not differ so markedly from those in civil life. However, many problems will be new. The cases will be of a traumatic nature, often very extensive. Speed will be vital. The environment oftentimes will be rather primitive. Equipment will be adequate, but standardized and stripped to minimum essentials.

It is apparent that all physicians entering the military service must receive some training. The nature and extent of the training will vary somewhat with the probable assignment of the individual officer. Officers who are to be assigned to field tactical units are given a brief course of instruction in medico-military subjects at the Medical Field Service School. In addition they will receive continued instruction by the senior medical officers of their organizations. This instruction must cover not only military matters but also the fundamentals of first aid and emergency surgery.

Officers who are to be assigned to hospitals will receive training at these hospitals. They will also in many instances receive brief courses of instruction in various specialties, among them

being orthopedic surgery, neurosurgery, thoracic surgery, plastic and maxillofacial surgery, and general surgery. The purpose of these courses is mainly to present the latest accepted principles of emergency procedures. These courses will be conducted at various civil institutions throughout the country.

Courses in tropical medicine, clinical laboratory and x-ray are conducted at the Army Medical School in Washington, D. C.

I have mentioned only a few of the phases of the training program essential to the expansion of the Medical Department. There are many other subjects in which medical officers must be trained. The responsibilities of officers in the Medical Corps are much broader than those of any physician in civil life. They encompass field medical service, the operation of many types of hospitals, ambulance service, medical supply, preventive medicine and the training and command of a huge number of Medical Department enlisted men. This enlisted personnel amounts to about 7.5 per cent of the strength of the entire Army; for 1942 about 270,000 enlisted men. Some of the duties of individual medical officers may seem somewhat foreign to their strictly professional training. All of these assignments are of a nature requiring medical background and viewpoint.

Before closing I wish to mention briefly one other activity of the Medical Department, that of medical supply. The Medical Department is charged with procuring and supplying all items of medical equipment for the Army. Over $50,000,000 has been spent for this purpose in the past year. The problem, however, is not merely a matter of purchasing large quantities of drugs and instruments. It includes the selection and procurement of supplies not only for fixed hospitals, but for field medical service. Special types of equipment are necessary for this service. Planning for procurement of medical supplies must be very foresighted since it must take advantage of advances in therapy and must also be realistic. World conditions have interrupted the normal flow of certain critical materials so that substitutions have been necessary in some instances. As examples, light steel has been substituted for aluminum in the sidebars of litters and substitutes for tin have been required in the packaging of some supplies. It can, however, be stated with confidence that drugs and equipment will be adequate for the efficient treatment of all military personnel.

I have tried to present a portion of the enormous task undertaken by the Medical Department of the Army. This task can only be accomplished by the dislocation of many individuals from their secure and comfortable positions in civil life. This will require considerable sacrifice in many instances. The record of the medical profession in national emergencies has been admirable. It has continued so in the present one. Time does not permit me to mention the enumerable ways in which the civilian medical profession has coöperated with the Medical Department of the Army, both individually and as organizations. This coöperation has been deeply appreciated. I feel confident that it will continue. We all have one common professional goal—efficient medical service whether in civil life or in the Army. The Medical Department is charged with the heavy responsibility of caring for our soldiers wherever they may be sent. I have no fear but that the medical profession will contribute willingly to that end. I hope that you have equal confidence that the Medical Department will utilize its personnel to the best advantage and will not waste the training of its members. Every American soldier must and shall receive efficient medical and surgical care.

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The attack on the voluntary system of medical care, aside from actual war needs, will very likely not proceed directly to a regimentation of civilian physicians but rather along the line of controlling hospitals and hospitalization to such a large extent that physicians must, in their hospital practice, be subservient to such controls. It is not a question of whether what will then be furnished in hospitalization and medical care will be as good as what is now provided. I would agree with you that it would be definitely and vastly inferior but the public is in a frame of mind to be sold the idea of government control and this will have political backing.—Herbert P. Ramsey, M.D., quoted in *Medical Annals of the District of Columbia,* March, 1942.

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"Whatever his views on the ethics of contraception, the doctor needs to be well informed about its practical aspects, for sooner or later he is sure to be called on to give advice on them."—*The Lancet,* London; quoted by the *New Generation.*

# Tuberculosis—A Foe Still Able to Fight*

By Charles Everard Lyght, M.D.†
Northfield, Minnesota

CHARLES E. LYGHT, M.D.

*M.D., C.M., Queen's University Faculty of Medicine (Canada), 1926. Department of Student Health, University of Wisconsin, Madison, 1927-36; Director, 1932-36; Associate Professor of Clinical Medicine, University of Wisconsin Medical School. Professor of Health and Physical Education, and Director of the Student Health Service, Carleton College, Northfield, Minnesota, 1936 to date. Staff of Northfield City Hospital and Allen Memorial Infirmary. Fellow of the American College of Physicians and of the American College of Chest Physicians. Member of several professional and scientific societies, including the Minnesota Trudeau Medical Society and Sigma Xi. Past President of the North Central Section, American Student Health Association, and, since 1936, Chairman of the Tuberculosis Committee, A.S.H.A. Publications, in addition to a weekly column: "Lyght on Health," have been mainly in the fields of clinical medicine, tuberculosis control and student health.*

■ TUBERCULOSIS is among the most ancient enemies of man. Perhaps we tend to underrate an opponent that is old but far from decrepit. For tuberculosis has lost none of its cunning in stalking new victims, and, for the sufferer, it is as stark and strange a catastrophe as any that may nowadays overtake him. Outmoded methods of diagnosis and treatment of tuberculosis are no more rational or excusable in this modern age than any other horse-and-buggy response to a contemporary medical emergency.

Proudly may the medical profession point to the seventh place among American death causes now occupied by the White Plague of our fathers, recalling that only forty years ago tuberculosis was the undisputed leader. This progress is no accident. It comes from unremitting effort by doctors, social workers, tuberculosis agencies and enlightened laymen. But, to be honest, we must admit that much forthright education remains imperative if we would witness every physician employing only the best diagnostic weapons, every citizen conditioned to coöperate with him. At the risk of discussing techniques understood and used by the majority, I propose to summarize briefly those means toward early diagnosis that some still seem to ignore or use too seldom.

*Address delivered before the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 18, 1941.

†Director, Carleton College Health Service; Chairman, Tuberculosis Committee, American Student Health Association.

### Diagnose Presymptomatic Tuberculosis!

During my own university days in the early 1920's the *symptoms* of pulmonary tuberculosis were still being stressed. Now, a mere school child may read in his hygiene manual that by the time cough, loss of weight, chest pain, blood spitting, night sweats or profound fatigue develop the case has passed into an advanced, toxic stage. We all realize how vastly diminished are the chances of recovery of such a tardily discovered victim, or, at best, the probability of full restoration to health and usefulness. Communicable as any other germ-spread malady, his tuberculosis may have perpetuated itself in a circle of innocent contacts, where, but for its leisurely growth to clinical recognition, it would cause a community sensation, if not scandal. However, tuberculosis will always lack the swift drama of the less dangerous smallpox or the less common poliomyelitis. Stealthily it succeeds, excelling them both!

Since everyone knows these facts, how are we to account for the observation that in my state four of every five patients who enter our sanatoria are in either a moderately or a far advanced stage of tuberculosis? Incomplete figures from a dozen Michigan sanatoria[12] for the past three years reveal that only 17.9 per cent of reinfection cases admitted entered during their minimal phase, while a report of the Detroit Department of Health[12] shows that adult cases reported during 1940 in that city were classified as follows: minimal, 16.4 per cent; moderately advanced, 44.4 per cent; far advanced, 39.2 per cent. Proud as you and I may be of progress in general, figures such as these strike close to home, and give you and me something specific to ponder. Compare them with New York City draft induction findings,[6] where, by x-raying approximately the first 16,000 of their apparently healthy draftees, seventy clinically significant cases were found. But, gratifyingly, only 1.4 per cent of these were far advanced, 32.9 per cent moderately so, while the encouraging total of 65.7 per cent were discovered in a minimal stage. Later New York returns on larger groups are still incomplete, though from all indications they will prove closely parallel.

**A report from Saranac Lake a few years ago revealed that after fifteen years had elapsed, fatalities among their patients had amounted**

**to 72 per cent of those first treated in the far advanced stage, 27 per cent of those who entered in the moderately advanced stage, and only 10 per cent of those fortunate enough to receive care from the minimal stage onward.[18] Yet Bloch[3] is still able to point out that even in these later days the far greater share of our tuberculosis bed capacity stands filled with cases of advanced disease, patients endlessly occupying space that otherwise would guarantee cure to most cases of early tuberculosis. It seems needless to emphasize that every late case was once an early one, remaining symptomless for months or years. But it *does* need to be said, and it *does* need to be remembered! Obviously, the prevention of advanced tuberculosis now is the surest road to the eventual elimination of all tuberculosis.**

Strong words on the subject of how a portion of our profession lags in utilizing up-to-the-minute methods came recently from Kendall Emerson,[7] when he wrote: "Too generally an external examination of the chest is taken as evidence of freedom from active tuberculosis. . . . But he who today stops at that point exposes himself to a charge of malpractice." He goes on to explain how important is the time-honored routine of inspection, palpation, percussion and auscultation. It is only when it is trusted to reveal what it is powerless to disclose, namely, the nonexistent physical signs of the presymptomatic minimal infiltration, that censure descends upon the method and the examiner who remains within its limits.

Shall we stop taking histories? Must we throw away our stethoscopes? Are we to turn over to tests or machines some of the most fascinating detective work in medicine? No, assuredly not! Back of every procedure there must abide the seasoned judgment of experience, the careful assembling and evaluation of all available data, that only the thinking clinician can supply. But this implies that we all shall use every modern agent of proved worth, slighting none, and constantly seeking newer and better ones.

### Diagnostic Aids

*History of Contact.*—It is vital and fruitful to examine carefully and repeatedly the known contacts of already diagnosed infectious tuberculosis. But we shall be deluded and disappointed if we reserve comparable scrutiny to those others of our patients who, when consulting us, happen to volunteer a history of tuberculosis exposure. Most apparently healthy people remain ignorant of definite contact, even when closely quizzed after they are found bearing significant lesions. Among several hundred positive tuberculin reactors at Carleton College, only 15 per cent have recalled for me actual exposure, while Bridge and Thurston[4] report that in a series of 1,000 new cases of tuberculosis found in their clinic, only 24 per cent were able to relate their illness to a known source. Let no physician scoff at the value of meticulous history-taking. But to rely on history of tuberculosis contact as the sole prerequisite to further investigation is a serious oversight. Tubercle bacilli issue no public statement when they move to a new residence.

*Physical Examination.*—None of us will debate the dictum that to await the occurrence of symptoms is inexcusable. But it is equally true that the classical signs described by many textbooks on physical diagnosis as pathognomonic of pulmonary tuberculosis are also now well recognized as late manifestations of consumptive disease. No competent authority seems to outline physical phenomena which we are to search for in presymptomatic tuberculosis, the plain reason being that no such signs are known. Since a thorough thoracic examination is directed at many conditions other than early tuberculosis, no practitioner should allow his trained eyes, ears or hands to abandon their art. But, after the disillusioning experience of being unable to elicit signs over many a minimal lesion, even frequently subsequent to x-ray disclosure, or the still more sobering jolt of encountering older, grosser, but deeply remote trouble similarly devoid of recognizable surface signs, one must display more than average temerity to continue exclusively a process of feeling and listening where one ought also to be looking. Roentgenography is as logical and necessary a part of the physical examination of the heart and lungs as is urinalysis in an appraisal of the urinary tract.

*The Tuberculin Test.*—As Myers remarks,[16] the tuberculin test is not claimed to be infallible. But he is perfectly correct when he urges it as our only clinically accurate method for discovering all those whose bodies harbor live tubercle bacilli. Having located the positive reactor, of course, our search has only begun. But, in my

opinion, we have omitted a basic clinical step if we fail to begin with, or at least to include, a check on the presence of tuberculin allergy or anergy. The test is easy, rapid, inexpensive, harmless. In our experience among students, the Mantoux intradermal technique, with its controlled dosage of proved potent tuberculin definitely introduced between the skin layers, is preferable to other methods, and well worth the admitted labor involved. It is hard to imagine its becoming permissible for doctors to object to any reliable diagnostic procedure in any disease on the mere basis of its calling for effort, a little time, a minor cost and intelligent interpretation.

Sweany,[20] in a recent paper, had this to say about the interrelation of tuberculin test and roentgenogram: "It is not a question of which is more important or which should come first any more than deciding which pint makes the quart. The precedence of the one or the other depends on the circumstances." He suggests that while mass surveys may employ the x-ray preliminarily, other forms of practice will usually adhere to the routine of physical examination, tuberculin test, x-ray, sputum examination and so forth.

Beginning with a small, preliminary dose, and following it by a stronger injection in negative reactors, final tuberculin dosage must reach adequate levels before we are safe in dismissing the patient as negative. In all but children, dosage should reach 1 mg. Old Tuberculin or 0.005 mg. Purified Protein Derivative. We have found the Vollmer patch test equally as much work as the hypodermic method, though it avoids use of the needle where that must be considered. In our hands the patch test has given results approximately no better than those of the first strength dose of PPD or 0.1 mg. OT. While it has its place, like Kereszturi,[11] I feel that "the evidence so far available does not indicate that it can be used to replace in reliability the well established Mantoux test." Certainly, national student health statistics have corroborated this opinion,[14] which is somewhat less favorable than the good results reported by Vollmer[22] and some others, notably pediatricians.

*The Roentgen-ray.*—**If we regard tuberculin as aimed at finding infected individuals, then the x-ray becomes the method *par excellence* for finding pulmonary lesions. Here again, however, we must be mindful of the medium's limitations.[15] Even on the best films there can appear only those thoracic abnormal densities so placed and so gross as to cast shadows. Nor will all such suspicious shadows prove tuberculous on follow-up. The trend[5,6,17] to rollpaper films, to 4x5 inch and (less satisfactorily) to 35 mm. photographs of fluoroscopic images, promises great economy of time, money, material and storage space, once a few present technical snags and shortages are overcome. Their utility is bound up with mass surveys, however, and, as yet, they cannot be fitted into the private physician's study of single cases. Stiehm bids fair to revolutionize x-ray procedures by his technique of spot-filming minimal lesions discovered by the fluoroscope in planes not accessible to conventional flatfilms or even stereoscopic views.[19] It appears that the best available team is the tuberculin test, followed by a good film, further reinforced by those additional facts undoubtedly ascertainable granted that an experienced examiner makes minute fluoroscopic study by means of the fastest possible screen.**

*Clinical and Laboratory Procedures.*—In determining the significance of early lesions, it seems unnecessary to do more than mention the demand for exhaustive, patient, clinical study of temperature, pulse rate, weight and the periodic scrutiny of suspicious lung shadows by serial films for the possibility of pathologic progress. Especially must we be alert in following the totally unpredictable course of new lesions seen in adolescents and young adults. Delays or lapses in follow-up are often succeeded by the finding of unexpectedly rapid advance of what initially may have seemed minor infiltrations. Much remains to be learned about tuberculosis and the changing phase in which tuberculosis management now finds itself. Due to the later ages at which patients are now apt to be first infected, entirely novel clinical manifestations are being noted.

Among our laboratory aids, total and differential leukocyte counts may be of supplementary value prognostically, though they may help but little with diagnosis.[19] So, too, the erythrocyte sedimentation rate, being non-specific, has proved of more assistance in checking up on the outlook in known cases than in clinching the identity of suspicious ones. Sputum examinations are essential, and there should be no limit to our repeating them as frequently as necessary. The oftener we go fishing—where there are fish—the more likely

TABLE I. TUBERCULOSIS DIAGNOSED AMONG AMERICAN COLLEGE STUDENTS

1937—1940
(Reported to the Tuberculosis Committee, American Student Health Association)

| Status of Institutions (475 colleges reported in 1940) | New Cases Found (per 100,000 students, three-year average) |
|---|---|
| I—Colleges and universities with no organized case-finding program | 14 |
| II—Colleges and universities with an organized case-finding program | 177 |

are we to bring some home. Probably the greatest advance in recent years in evaluating the sputum-free or sputum-negative case has been the renewed use of aspiration of fasting gastric contents, followed by guinea pig inoculation. Investigators have reported as high as 75 per cent of their cases bacilli-positive by this means, and Stiehm[19] believes it a better index than the x-ray in determining favorable or unfavorable progress in subclinical cases. Floyd and Eastman[9] also seem favorably impressed by this method in examining children of tuberculous families, having uncovered a significant number of bacilli-positive cases in that way only.

### The Value of These Measures

Do these agents enable us to discover tuberculosis in its early, curable, usually non-infectious stage? The outstanding success of many noted workers answers the question affirmatively. In Michigan such men as Vaughan and Douglas[5] have added immeasurably to our knowledge of case finding and to the improvement of its weapons. Let me quote figures with which I am most familiar, however, namely, those from the colleges and universities of the United States and Canada.[14] Last year, among just under half a million students, 248 schools with case finding programs discovered 637 new cases of tuberculosis, 292 of which were diagnosed as clinically active by all accepted standards. Almost all in this latter category left college to begin immediate treatment. In another group of over 200 institutions without regular case finding, there were enrolled 200,000 young people, but the year's returns reported only twenty-one active and fourteen arrested cases found, few of them in a pre-

TABLE II. DEATHS DUE TO TUBERCULOSIS
World War I

| | Rates per 100,000 population | |
|---|---|---|
| | 1914 | 1918 |
| Belgium | 124 | 245 |
| England and Wales | 135 | 192 |
| Germany | 143 | 230 |
| Italy | 145 | 209 |
| France | 228 | 246 |
| Austria | 256 | 403 |
| United States* | 147 | 150 |

*Not a belligerent until 1917.

symptomatic stage, but largely diagnosed when suspicious, late symptoms had appeared (Table I).

My last wish would be to suggest that mass case finding is the *only* hope for eradicating tuberculosis from our population. I am impressed, nevertheless, by the fact that the only thing mass surveys have done is to seize on, apply and prove the truisms that tuberculin testing, the x-ray and intelligent clinical and laboratory evaluation are the only modernly justifiable ways of searching for early tuberculosis. All these methods are handy to every physician, and, if every doctor in America began tomorrow to apply them individually, the collective total of our efforts would be the greatest and most successful mass attack in medical history, with no weak salients in our front by which the enemy might escape.

### The Part War Plays

The presence of a great national emergency in the midst of a stupendous world conflict intensifies and emphasizes the need for the adoption by the entire profession of methods conferring maximum efficiency. European figures (Table II) from the last World War[2] disclose how rapidly and steeply tuberculosis mortality climbed in the warring European nations during and for some years after the fighting. With civilian populations so much more intimately at war and living under such deplorable sanitary conditions, it can only be expected that more extensive ravages by tuberculosis will occur as the by-product of World War II.

Edwards, Long, and others[6,8,13] have refreshed

our memories concerning the appalling suffering and waste in our own armed forces dating back to the last war, traceable in large part to the manifest ineffectiveness of routine physical examinations in finding pulmonary tuberculosis in supposedly healthy men. In Canada, where now every recruit receives a chest x-ray,[1,10] the toll from the overlooked tuberculosis of 1914-1918 amounted to six tuberculosis deaths to every 100 deaths due to wounds, twenty-five tuberculosis pensions to every 100 pensions for wounds, at a cost of over $150,000,000. Following Canada's and Australia's example, the United States is tackling the problem by preinduction chest x-rays and other appropriate studies to rule out actively tuberculous recruits or those whose lesions might be re-activated by service. But so far, local facilities have been provided so that only about half our men are being x-rayed. Then they are billeted with non-filmed men from less exacting or less fortunate centers who may promptly infect the healthy individuals. It is to be hoped that the x-ray program will soon extend to embrace every recruit in each of the services, with adequate follow-up during the entire period he wears his country's uniform. The staggering total of $960,000,000 had been expended up to last October to care for the tuberculous veterans of the first World War. That we are moving to avoid a repetition of that sad experience is encouraging, especially when we reflect that the personal loss and suffering never can be reduced to figures. But we cannot turn from a consideration of what is right and best for our soldiers and sailors without at once perceiving that every citizen, in uniform or out, man, woman and child, white, red or black, deserves equally to be saved from tuberculosis by the vigilance of an awakened medical profession.

## Conclusion

In conclusion, let me quote the words of Vaughan,[21] of your great University of Michigan. He wrote, not so long ago: ". . . The friendly family physician must be prepared so that he understands that the stethoscope is no longer the accepted means of discovering the early case. He must be taught that minimal tuberculosis is found by the roentgenological examination of the chest, usually preceded by the tuberculin test as a means of screening out the suspects." There, succinctly stated, Vaughan has summed up in one short paragraph what I have needed half an hour to say. I well know that the physicians of Michigan require no persuasion that these words are true. The challenge before us is that we remain dedicated to the proposition that, in medicine, as elsewhere, actions speak even more loudly than words!

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The gap between proven knowledge and effective action based on that knowledge, is nowhere more glaring than in our fumbling efforts at control of the most common of the infectious diseases.

We know that the time lost from the common cold would build hundreds of the planes we now need so much. Yet, the simple prophylactic measure of isolating all those with colds in early stages is applied routinely to a few school children only.

This failure to coördinate knowledge and action is also all too common in our efforts to control and eradicate tuberculosis.—*Tuberculosis Abstracts,* April, 1942.

# The Diagnosis and Treatment of Placenta Previa*

By William F. Mengert, M.D.
Iowa City, Iowa

WILLIAM F. MENGERT, M.D.

*M.D., Johns Hopkins Medical School, 1927; Diplomate, National Board of Medical Examiners, 1928; Rotating Intern, University of Iowa Hospitals, 1927-28; successively, departmental intern (1 yr.), assistant (1 yr.) and instructor (2 yrs.) in the Department of Obstetrics and Gynecology, University of Iowa, 1928-32. Fellow in Gynecologic Research, Gynecean Hospital Institute of Gynecologic Research, University of Pennsylvania, 1932-34; Assistant Professor of Obstetrics and Gynecology, University of Iowa, 1934-38; Associate Professor from 1938 to date. Associate Obstetrician and Gynecologist to the University Hospitals since 1934. Diplomate of the American Board of Obstetrics and Gynecology 1933. Member and officer of numerous medical organizations as well as fraternal and social groups. Author of several medical articles.*

DURING a lifetime experience with obstetrics, the average physician will meet placenta previa among eight or ten of his patients, each of whom is a potential candidate for fatal hemorrhage. The results of the hemorrhage may be minimized with modern therapy and with the increasingly common employment of blood transfusion. Nevertheless, it is usually the management by the physician, and not chance, which determines whether the woman is to live or die.

**Blood transfusion is frequently life saving and is performed much more readily in the hospital as contrasted with the home. Other hospital facilities are so important in management that it may be stated as a maxim that, all patients with suspected placenta previa should be immediately removed to a hospital. Upon her arrival, if not before, she should be cross-matched and a donor selected in preparation for immediate blood transfusion. As a third maxim, it should be stated that the establishment of an absolute diagnosis of placenta previa constitutes an indication for the prompt termination of pregnancy.**

Today, commonly reported maternal mortality rates vary downward from three per cent. Although these rates are near to an irreducible minimum, it must never be forgotten that the low implanted placenta constitutes a serious threat to the mother's life. It is only by intelligent and prompt treatment that serious and perhaps fatal hemorrhage is preventable. There can be no "appeasement" with placenta previa.

Among 14,569 obstetric patients at the University of Iowa between July 1, 1926, and July 1, 1941, there were seventy proved cases of placenta previa, an incidence of 1 :204. This figure may be somewhat higher than average experience, since complicated cases tend to gravitate to a medical center. However, it is probably safe to say that the condition occurs at least once in 300 obstetric patients. The variety of previa was distributed as follows: marginal 54, partial 33, and complete 13 per cent of the series. In other words, partial and even complete coverage of the cervical os, together constitute less than half of all cases seen. This fact has an important bearing in the consideration of the type of treatment, and will be discussed later. Of the three types of previa, marginal, partial, and complete, or first, second, and third degree, respectively, accurate classification can be made only when the cervical os is fully dilated. For example, a placenta which covers the partially dilated os may fail to do so when it is fully open.

## Diagnosis

The symptomatology is relatively meager. Painless, apparently causeless, bleeding occurring in the third trimester of pregnancy must be considered to be placenta previa until the diagnosis is definitely established. The first hemorrhage often occurs at night; the woman is awakened by a wet bed to find herself lying in a pool of blood. Fortunately for the patient, the first hemorrhage is seldom fatal. In general, the earlier in pregnancy the bleeding manifests itself, the more severe is the variety of placenta previa. This fact is readily demonstrated by calculating the average birth weight for each variety. In the Iowa series, the average weights of the babies born of mothers with marginal, partial, and complete placenta previa were: 2,750, 2,480, and 1,875 grams, respectively. From these figures it is readily seen that the fetus tends to be most immature with complete, or central, previa. Only with the marginal variety do average birth weights tend to be above 2,500 grams, the borderline between maturity and prematurity.

There is but one certain diagnosis of placenta

*From the Department of Obstetrics and Gynecology, the State of University of Iowa. Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 18, 1941.

previa, namely, digital vaginal palpation of the placenta through the cervical os. Not only may the diagnosis be established with certainty, but also it is possible to ascertain the degree. When the prepared and gloved finger, introduced through the os, cannot feel the placenta, the patient does not have placenta previa. Sometimes the finger encounters the placental edge at the cervical border (marginal previa), sometimes the incompletely dilated os is partially covered (partial previa), and occasionally the finger encounters placenta everywhere. In the last case, one may be dealing with either a severe grade of partial, or a central placental previa, and final diagnosis must be made by the post-delivery examination of the placenta. This last differentiation, however, is largely academic, since from a practical standpoint of choice of therapy it is much more important to differentiate between partial and complete occlusion of the incompletely dilated os. All other methods of diagnosis must be classed as helpful, but not absolute. Vaginal examination was done in sixty-three of the patients in our series. In the remaining seven the diagnosis was based on the examination of the placenta after delivery, the palpation of a placental edge per rectum, and on the history. All of these seven patients except one with a second degree, had the mildest form, that is, marginal placenta previa. When the membranes are intact except for the point of rupture, the distention of the amniotic sac with water after delivery will usually demonstrate the intra-uterine relationships of the placental margin and membranes with considerable clarity. It is assumed, of course, that the point of rupture of the membranes occurred directly over the crevical os.

**Digital vaginal examination must never be performed until the delivery and/or operating room is completely set up for any emergency, since palpation of the placenta may loosen it sufficiently to give rise to brisk bleeding. Unless one is prepared to institute measures of control at once, serious hemorrhage may result. Many object to vaginal examination on the basis that subsequent cesarean section is thereby contraindicated. We do not feel this is the case. The dangers of infection following a well-conducted, sterile, vaginal examination are very small and are negligible in comparison with those associated with abdominal delivery. Moreover, many cesarean sections are performed on the basis of history alone. Such patients frequently do not have placenta previa, and their number is greater than those actually with the condition. If cesarean section is contemplated it is suggested that a single properly conducted, sterile, vaginal examination be done in surgery after the patient is prepared, but before the incision is made. By this means, many women without placenta previa, but who bleed during the last trimester of pregnancy, will be spared a useless operation.**

### Roentgenography

By a soft tissue technique employed in almost 200 pregnant women, Dippel and Brown in 1940 were able to visualize the placenta in about 90 per cent of the cases. A single, lateral roentgenogram usually sufficed, since the anteroposterior view was not found to be of particular aid. Apparently the placenta in normal women is generally attached to either the anterior or the posterior wall and seldom crosses the dividing line between them. For this reason, lateral views are most likely to demonstrate the placenta. By exclusion a placenta visualized in the upper part of the uterus obviously cannot be near the os. However, this method offers only negative evidence. Positive diagnosis may be obtained in about three-quarters of women with placenta previa by the visualization and study of the relationships between the urinary bladder and the fetal head, the craniovesical space.

Cystography in the diagnosis of placenta previa was introduced in 1934 by Ude, Weum, and Urner, who outlined the soft tissue space between the fetal skull and the bladder by instilling sodium iodide into the viscus. Prentiss and Tucker, working at Iowa, felt that a liquid contrast medium, by its own weight, might produce some distortion of the bladder, and suggested the use of air. This is the technique currently employed at the University of Iowa.

1. Low cleansing enema (desirable but not necessary).
2. Empty bladder with a catheter.
3. Introduce 100-120 cubic centimeters of air and remove catheter.
4. Anteroposterior film tube centered on bladder, table tilted feet down 10 degrees from horizontal.
5. Right and left semilateral views with pelvis turned 35 degrees, first to right and then to left side.

Theoretically, an anteroposterior and a directly lateral exposure will show 3 dimensional, spatial relationships with absolute fidelity. However, the directly lateral exposure cannot be used because of technical roentgenologic difficulties and, therefore, the semilateral was introduced. Inasmuch as a floating head might easily lead to a false interpretation, a constant force which holds the head over the pelvic inlet is necessary in order to arrive at consistent results. Gravity is such a force, and provides the reason for tilting the foot of the table downward. The interpretation of the roentgenogram in vertex is not easy, but is usually so complicated by breech and transverse presentations that it is advisable to forego the use of cystography in such cases. Normally the craniovesical space as seen on the roentgenogram is occupied by the fetal scalp, membranes, uterine wall, peritoneal fold and bladder wall; in placenta previa it is widened by the interposition of some portion of the placenta. In the normal woman, the arc of the bladder shadow parallels the arc of the fetal head at a constant distance of 1 to 2 centimeters. In placenta previa the arcs are not uniformly parallel, and where widening occurs, it is usually of the order of 3 to 5 centimeters. The necessity for the employment of *both* semilateral positions is seen in the accompanying illustrations. The anteroposterior and one of the semilateral views give no evidence of the condition, while it is clearly demonstrated on the second semilateral. In the seventy patients observed at the University of Iowa, cystography was employed in diagnosis seventeen times, with a resulting accuracy of 76 per cent. We feel that it represents a distinct advance in diagnostic methods, but that it cannot, and should not, displace vaginal examination.

**In summary, a reliable diagnosis of placenta previa can be made only by sterile vaginal examination, which should be done at the time therapy is contemplated because of the danger of instituting hemorrhage.**

### Treatment

Many methods of treatment of placenta previa are currently in vogue, and may be classified under the headings of vaginal and abdominal delivery. Some of them are distinctly dangerous, others offer the mother nearly identical chances of survival but vary widely in their effect on fetal mortality rates.

Since most of the methods currently employed are reasonably safe for the mother, it is desirable to give consideration to the baby and to select a method which results in the highest possible salvage.

Although a considerable variance in opinion exists concerning the best method, all physicians are in accord with regard to two basic measures. (1) The patient should be removed to a well-equipped hospital. (2) She should be immediately prepared for blood transfusion and the donor must remain on call until the emergency is ended. Blood transfusion is not necessary in every case of placenta previa, since some patients do not lose abnormal quantities of blood. On the other hand it was used in almost half of the seventy patients in this series. When the patient is in, or near, a condition of shock following severe hemorrhage, the use of blood transfusion is life-saving. The treatment of shock has done more, perhaps, than any other single thing to reduce the maternal mortality rate in placenta previa. The question of whether to deliver the patient by the vaginal or the abdominal route, pales into insignificance in the face of the necessity of combatting shock by blood transfusion.

In a few instances, when the fetus is questionably able to survive after birth, and when the initial hemorrhage is minimal it may be justifiable to put the woman to bed in a hospital. In such cases no attempt should be made to establish an absolute diagnosis by vaginal examination because of the associated dangers of hemorrhage until the fetus grows to adequate size, or until additional bleeding necessitates treatments. Roentgenologic and cystographic examination are permissible, but otherwise the patient must remain absolutely at rest and under constant observation. If hemorrhage recurs despite bed rest, preparation for immediate delivery must be begun. Watchful waiting is rarely justifiable, and the practice is not generally recommended. Except as outlined, and for the reason noted, the expectant treatment of placenta previa should not be employed.

**Dangerous vaginal methods of delivery include packing the cervix and vagina, and manual dilation of the cervix. A vaginal pack, no matter how carefully applied, is a dirty thing. The longer a pack remains in the vagina, the more certain is the chance that serious infection will arise. One of the two deaths in our**

**series occurred several days postpartum from acute endocarditis and pneumonia in a woman who had been packed prior to her admission to the hospital. It is difficult to set a time limit on the safety of a vaginal pack, but as a general rule the danger of infection increases rapidly after six or eight hours. Manual dilation, or more popularly "manual laceration," of the cervix has no place in the treatment of placenta previa. No matter how carefully performed, forcible dilation of the cervix cannot be done without associated laceration. Since the placenta is inserted around the cervix in a patient with placenta previa, and since the placental site of the uterine wall is soft and contains many large blood sinuses, a tear in this region may give rise to uncontrollable and perhaps fatal hemorrhage. The risk does not even begin to justify the use of the method.**

Other vaginal methods include: spontaneous labor with or without antecedent rupture of the membranes, scalp traction with some type of instrument which does not produce serious injury, the use of a hydrostatic bag, and Braxton Hicks version.

Bleeding in a patient with placenta previa is, of course, from the maternal blood sinuses underlying the placenta, and none of it is fetal. During the latter part of pregnancy the lower uterine segment begins to form, and there is a considerable realignment of the cervical tissues, since they move upward to take part in the formation of the passive uterine segment. As this movement of tissue occurs, the low-lying placenta becomes partially detached, and maternal blood sinuses are exposed. The exposed sinuses may be occluded by clotting, but as effacement of the cervix continues, additional sinuses are exposed, and hemorrhage recurs. Obviously, the lower the implantation of the placenta, the more completely it covers the os, and the earlier in pregnancy it will become partially detached.

The problem in all vaginal methods of treatment of the condition, therefore, consists in the control of hemorrhage during the time that the cervix is dilating sufficiently to permit delivery of the baby. The mechanism of control is essentially the same in all of the accepted vaginal measures, and consists in causing sufficient force to be applied to the placenta so as to jam it against the bleeding maternal sinuses. It is similar in principle to pressure against an open wound with a wad of gauze. Generally the natural hemostatic action of the "blood-tight" postpartum uterus provides sufficient control so that bleeding is seldom seen after the patient is delivered.

If only a small portion of the cervix is involved, the force exerted by the uterine contractions of spontaneous labor against the margin of the placenta will be sufficient to check bleeding. On the other hand, if a partial or complete variety of placenta previa is encountered, there will be such a large area of placental separation, and so many maternal sinuses exposed, that uterine contraction will not afford sufficient pressure. In such a case, additional force applied through traction on the baby's head, the medium of a hydrostatic bag, or traction on a leg, is necessary.

Spontaneous labor with, or without, antecedent rupture of the membranes will successfully treat *more than half* of all cases of placenta previa, since 54 per cent of our cases were marginal. If labor ensues spontaneously a short time after the initial hemorrhage, it may not be necessary to rupture the bag of waters upon confirmation of the diagnosis by sterile vaginal examination. On the other hand, with the patient not in labor, rupture of the membrane is necessary in order to institute pains and control the hemorrhage. Eighty-nine and one-half per cent of the women so treated were delivered of live babies. Of all the vaginal methods employed at the University of Iowa, this offered the best chance of fetal survival, and no mother so treated perished. Artificial rupture of the membranes in those patients in whom the placenta merely encroaches upon the cervical margin is a simple procedure, is applicable to at least half of all cases, and offers such excellent chances of fetal and maternal survival that its use is earnestly recommended.

Following simple, artificial rupture of the membranes, bleeding is occasionally not completely controlled, because the unaided power of uterine contraction does not press the placenta against the bleeding maternal sinuses with sufficient force. In such instances, it is our custom to employ traction of one-half or one pound to the scalp with the forceps devised in 1925 by Willett. It is not necessary to have at hand the identical instrument, since a firm grasp of the scalp may be secured with two or three Allis clamps, or with volsella. Many shrink from the employment of such a "brutal" device but after all, damage is superficial and exterior to the skull. Of the six pa-

tients recently so treated, five of the babies survived and in no instance did any complication develop from the scalp wound and suturing was never necessary. In fact, one of the babies which survived weighed 1600 grams (3½ pounds) at birth. When scalp traction is applied by means of Allis clamps, it is necessary to employ at least two of them, since adequate traction will usually pull off a single clamp. It is essential to secure a bite of the *whole* thickness of the scalp. Timidity of the operator resulting in an inadequate grasp of the scalp will invariably cause slipping of the clamps. Scalp traction, in our series, resulted in a low fetal mortality rate, and was second only to artificial rupture of the membranes plus spontaneous labor in its beneficial effect on fetal salvage. This speaks well for the method, since it was employed only in those patients whose hemorrhage could not be controlled by the unaided efforts of labor and therefore presumably suffered from the more severe degrees of previa. Spontaneous labor and scalp traction possess the tremendous common advantage that during the process of cervical dilation, descent of the head occurs. Upon completion of cervical dilation, it is a simple matter to wait for spontaneous delivery, or to hasten matters by a simple, *low* forceps operation. Spontaneous labor with or without antecedent rupture of the membranes will control *all* cases of marginal and a few of the simpler varieties of partial placenta previa with great success. Scalp traction in addition will suffice to treat successfully all of the simpler, and a few of the more severe, varieties of partial previa. For instance, the use of the Willett's clamp resulted in complete control in one of our patients where the placenta covered most of the partially dilated cervical canal.

**Over 75 per cent of all cases of placenta previa may be treated by one or both of these simple measures with practically no danger to the mother and less than 20 per cent fetal mortality rate.**

### Treatment of Severe Grades

When the more severe grades of partial and central placenta previa are treated vaginally, it is usually necessary to employ a more positive type of pressure than that afforded by scalp traction. The hydrostatic bag represents a device which can be employed with considerable success in so far as the mother is concerned. It is necessary to pierce the placenta with a long instrument, such as a uterine dressing forceps, and to insert the collapsed bag directly into the amniotic cavity. With a tractive force of from one to two pounds, applied after the bag is distended with sterile water, hemorrhage is practically always checked. After the cervix becomes fully dilated and permits the bag to slip into the vagina, hemostasis is lost and immediate delivery is demanded. Since the baby's head seldom follows the bag through the cervix, the application of forceps is a practical impossibility and podalic version and extraction becomes the operation of choice. The substitution of the after-coming head for a vertex presentation invariably increases the danger to the baby and should be avoided whenever possible. Recently, we have obviated the necessity for version by instituting scalp traction as soon as the bag is expelled, and believe that some babies can be saved by this method. Scalp traction alone is unsatisfactory in the more severe varieties of placenta previa since sufficient force to check hemorrhage will tear the clamp lose. On the other hand, the amount of scalp traction necessary to prevent bleeding and insure descent of the head is greatly diminished after hemostasis and dilation of the cervix have been achieved through the medium of a bag. The employment of a hydrostatic bag in the treatment of the severe varieties of previa represents a safe and feasible method of treating the mother. Hemostasis is excellent and the maternal dangers are no greater than with any other type of therapy. From the standpoint of the baby, however, the functional area of the placenta diminishes considerably with increasing cervical dilation when the bag has been inserted through an artificially produced hole in the organ. For this reason, the hydrostatic bag, while serving the mother admirably, definitely increases the risk to the baby in those cases which involve a considerable area of the placenta.

Braxton Hicks version presents the combined disadvantages of version and of the hydrostatic bag. Fetal risk is increased not only because of the substitution of the after-coming head, but also because a considerable portion of the placenta is rendered non-functional. On the other hand, performance of Braxton Hicks version requires no array of instruments and can save maternal lives in an emergency. The technic is relatively simple; the operator inserts two fingers through the partially dilated cervix and the placenta, or around the placental edge. The abdominal hand

depresses the baby's breech until the fingers of the vaginal hand are able to grasp a single foot, which is withdrawn through the cervix and attached to traction. The progressively increasing circumference of leg, thigh and buttocks simulate the hydrostatic bag in action.

### Maternal Mortality

At the University of Iowa, where the vaginal treatment of placenta previa is generally employed, 2 of the 70 mothers succumbed, a maternal mortality rate of 2.86 per cent. One of these deaths, previously mentioned, occurred from acute endocarditis and bronchopneumonia during the second postpartum week in an eighteen-year-old primigravida whose vagina and cervix had been packed prior to admission. Her blood loss during delivery was inconsequential and there was no secondary anemia which might be considered to be a contributing cause of the sepsis. The other fatality involved a 35-year-old gravida 9, admitted in labor with a complete placenta previa and with no evidences of shock. Hemorrhage was controlled with a total blood loss of only 500 cubic centimeters but while under the influence of a general anesthetic the patient's heart suddenly stopped beating. Post-mortem examination revealed a septicemia which obviously was present on admission. It is difficult to decide whether or not this caused, or contributed to, her death. Between January 1, 1936, and July 1, 1941, forty-two patients with placenta previa were treated without a maternal death.

### Fetal Mortality

A discussion of fetal mortality rates requires the division of the cases into two groups: the total series of seventy, and a group of fifty-nine potentially viable babies weighing 1500 or more grams at birth. Each of the remaining eleven fetuses weighed less than 1500 grams (3⅓ pounds) and all succumbed. The uncorrected fetal death rate of the entire series was 44.3 per cent. Excluding the 11 abortions, the death rate for the potentially viable group of 59 babies was 33.9 per cent. As might be expected, the fetal mortality rate rose sharply with the severity of the variety of previa. In the potentially viable group it was 12.1 per cent of the marginal, 59.2 per cent of the partial, and 75 per cent of the complete previas. The baby of a woman with severe varieties of placenta previa treated vaginally, faces a triple hazard: (1) it is premature, (2) it is partially asphyxiated because of placental compression, (3) it must undergo the rigors of a difficult and traumatic delivery. Lest these statements be interpreted as a plea for routine abdominal delivery, it must be reiterated that over three-quarters of all patients with placenta previa can be treated by spontaneous labor and/or scalp traction with essentially no danger to the mother and less than a 20 per cent fetal mortality rate.

Following a review, several years ago, of the University of Iowa experience with placenta previa, the fetal mortality rate among potentially viable babies was found to be 37.5 per cent. It was evident that babies were dying not because of the basic condition, but because of the method of delivery. The standard method of treatment employed in a majority of the patients at the time consisted in the use of the bag followed by version and extraction. Since more than half of the babies died, our procedures were modified so as to exclude the operation of version and extraction in so far as possible and to encourage the use of spontaneous labor and scalp traction. As a result, the fetal mortality rate since then has been cut more than half.

### Treatment

Several facts regarding placenta previa are apparent from the data obtained from the seventy patients: (1) more than half of all cases are marginal, and need little more than blood transfusion and the institution of labor, (2) the vaginal management of all cases is safe and feasible for the mother, (3) the vaginal treatment of severe varieties imposes a considerable danger to the baby.

**Since the mother can be treated with equal safety either by vaginal or abdominal delivery, it is believed that cesarean section should be performed only when it is clearly indicated for the sake of the baby. Excellent maternal and fetal survival rates can be achieved by very simple vaginal means in marginal, and in the less severe grades of partial, previa, and general observance of this rule would limit the use of abdominal delivery to the complete and the more severe grades of partial placenta previa.**

In the present series of seventy patients, severe grades of placenta previa were encountered in less than 20 instances. This would not necessitate any very large series of cesarean sections among

a total number of more than 14,000 obstetric patients. Even if all patients with placenta previa are treated by abdominal section, the number is relatively small. So long as the use of cesarean section is confined to those patients actually suffering with placenta previa, and is not employed indiscriminately in all women experiencing bleeding during late pregnancy, no serious objection can be justifiably raised against it. Undoubtedly, cesarean section offers the baby of a mother with complete, or severe, grades of partial previa, its best chance for life. On the other hand, when the fetus is known to be dead, or is obviously too small for existence in an extra-uterine environment, the employment of a hydrostatic bag should be the method of choice. At the present time, therapy at the University of Iowa has been modified to include the use of abdominal delivery for the sake of the baby in the severe varieties of placenta previa. However, the average weight of the infant at birth in the 9 patients with central previa was 1875 grams and 4 of them weighed less than 1500. With the known tendency of the babies of such women to be premature and in some instances too small to survive, we believe that considerable thought should be evoked in a given case before resorting to cesarean section. It has a definite place in the treatment of the more severe varieties of placenta previa, but should be performed only in the interests of the baby.

### Summary

1. All patients with suspected placenta previa should immediately be removed to a hospital.

2. The establishment of a definite diagnosis constitutes an indication for the prompt termination of pregnancy.

3. Every patient with suspected placenta previa should be cross-matched and a donor selected in preparation for immediate blood transfusion.

4. The treatment of shock represents the first and most important step in therapy.

5. Diagnosis should always be made by sterile vaginal examination, which should not be done until all preparations for the immediate treatment of any eventuality are completed.

6. Cystographic and soft-tissue roentgenograms represent a distinct advance in diagnostic methods, but cannot and should not displace sterile vaginal examination.

7. Manual dilation of the cervix has no place in the treatment of placenta previa.

8. Vaginal packing represents a dangerous method of therapy which should be resorted to only in extreme emergency.

9. Marginal placenta previa occurs in more than half of all cases and can be adequately treated from both a fetal and a maternal standpoint by spontaneous labor with or without antecedent artificial rupture of the membranes.

10. The use of scalp traction will materially decrease the fetal mortality rate.

11. The use of version and extraction should be markedly curtailed.

12. Cesarean section is indicated for the sake of the baby in selected cases of the more severe varieties of placenta previa.

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# The Value of the Oxygen Incubator

## The Survival of a Twenty-seven Ounce Baby

By J. C. S. Battley, M.D.
Port Huron, Michigan

The survival of a small premature baby is always of interest; that of one, three months premature, weighing twenty-seven ounces at birth is so unusual as to merit a brief report.

The mother was a patient of Dr. D. J. McColl of Port Huron, Michigan. The pregnancy had been normal. On March 17, 1941, she had undergone the unwonted exertion of walking a number of blocks against a high blustery wind. Soon after reaching home, symptoms of labor appeared and a baby girl—twenty-seven ounces at the first weighing on the following morning—was born a short time after. The infant showed such an unusual amount of vigor, moving her limbs about, and crying lustily, that it was decided to send her to the Port Huron Hospital where facilities for premature care were available.

From the menstrual dates it was felt that the baby was fully three months premature. The point of change from the obligatory uterine phase of fetal life to the period during which life can go on apart from the mother has been somewhat arbitrarily placed at a weight of 700 grams which is reached about the sixth fetal month although this certainly is not a constant point. The weight of this baby, twenty-seven ounces (780 grams) would place her quite near the dividing line and is further evidence of extreme prematurity.

At the hospital the baby was placed in an incubator

of the type devised at the Henry Ford Hospital and sponsored by the Michigan Department of Health. In addition to the heating unit the incubator contains a humidifying apparatus and an inlet for oxygen. Its construction allows the maintenance of any desired concentration of oxygen. The baby was blue and oxygen was administered at once with rapid improvement in her color, but it was found that continuous administration was necessary in order to maintain a normal color. The baby continued to show much activity and took water well within twelve hours of birth. As soon as the breast milk came in, it was offered and accepted readily. Fortunately, the mother was able to supply an adequate quantity of breast milk for two months. After this an artificial supplement was given for two weeks and then complete artificial feeding. The food selected was Mead Johnson's Olac because of its suitability for the premature digestive system. It was found satisfactory in every way. Feedings were given at first every two hours, at the end of the seventh week every three hours and shortly after discharge from the hospital on July 1st, every four hours. The baby was removed from the incubator at the end of the seventh week.

After a week of stationary weight the gain was rapid and constant. At the end of the first month the weight was two pounds; at the end of the third (the expected time of birth), four pounds; at five months, eight and one-half pounds and at seven months, twelve pounds. The weight curve compares favorably with the average curve for the last three months of fetal life.

The method of feeding used was at first by medicine dropper with attached rubber tube and finally by ordinary bottle. A successful transition between the two was affected by the use of a so-called "didydoll" bottle. This small bottle and nipple served admirably for some time.

Cod liver oil concentrate was added on the twenty-eighth day, ascorbic acid on the thirty-second day and vitamin B concentrate on the forty-sixth. There was no reason for giving these vitamins at the time indicated. Indeed, the feeding was going so well that it was with some temerity that these substances were introduced for fear of upsetting digestion, especially as it was felt that breast milk contained a considerable supply of vitamins. They might well have been started earlier. As it is known that little iron is stored in the body at the sixth fetal month ferrous sulphate was started at the sixth week. Five drops of a liquid preparation was given initially and slowly increased up to two grains daily. This dose was continued until six months of age. It is possible that thereby an early anemia was avoided. The red blood count at five days was 4,400,000 and the hemoglobin 104 per cent; at one month the red blood count was 4,200,000 and hemoglobin 80 per cent; at three months 3,000,000 and 57 per cent and at four months 3,209,000 and 60 per cent. The white counts were not abnormal at any time. In the last three months of fetal life, considerable calcium is deposited in bone by way of the mother's blood. Breast milk contains sufficient calcium but its absorption from the intestine is limited and may not be sufficient to prevent the appearance of rickets in many premature babies. To aid in the absorption of calcium abundant vitamin D was given to this baby and up to the end of the seventh month no clinical signs of rickets were observed.

During the first week the body temperature dropped as low as 92 degrees. The incubator temperature was at first 90 to 95 degrees and finally 85 degrees. By the end of the first week the body temperature became stabilized at 97 degrees. From this time there was a gradual rise reaching 98 degrees at the end of the sixth week. A constant rectal temperature of 98.8 degrees—which might be considered normal—was not reached until the end of the third month.

A strict isolation was observed at all times during the hospital stay. A minimum of handling was insisted upon and physical examinations were infrequently made. Everyone, with the exception of the nurses, was kept strictly away. No small amount of credit is owing to the faithful and meticulous care of the various nurses looking after the baby. The baby had two respiratory infections while in the hospital with fever as high as 102 degrees. These illnesses, which might readily have been fatal to so small a child, were well handled.

## Discussion

No particular contribution was made to premature care unless it was the demonstration of what the prolonged use of oxygen will do. On account of continued cyanosis it was necessary to give oxygen continuously—a rate of two liters per minute was used—for twenty days and then at intervals for two weeks. During this latter period it was found that food was taken better if a few minutes of oxygen inhalation was given before each feeding. Possibly the respiratory organs at six months are not fully ready to take on the task of furnishing oxygen to the blood. When cyanosis is persistent it may be that an increased concentration of oxygen is necessary to enable the infant to establish itself apart from the mother. In this case the baby surely would have died without it. This baby provided much lay and medical interest. Smaller babies have lived but the survival of such a small one and so premature must be quite unusual.

## Addendum

Since this time there have been several small prematures in the Port Huron Hospital to whom oxygen has been routinely administered, infants six to ten weeks premature and weighing two pounds twelve ounces to four pounds three ounces. Five in all have been so treated, three of whom were under three pounds weight. Some showed cyanosis at birth and some did not.

Oxygen was used as in the above reported case for periods of time varying from three to ten days, the longer periods for those babies who showed cyanosis on attempts to discontinue it sooner.

It is known that cyanosis is not the first sign of oxygen want; that as much as fifteen per cent oxygen desaturation may be present without apparent blueness. Oxygen was given with the thought that thereby adjustment to extra-uterine life might the more readily take place and that, perhaps, it might be a factor in saving babies who would otherwise die through inability to quickly adjust their physiology to the inhospitable new environment. There have not been enough cases and no controls from which to draw a considered conclusion but these infants have all done so exceptionally well as to give the impression that the oxygen was of value.

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## The Survival of a Thirty-six Ounce Baby

By Park S. Bradshaw, M.D.
Muskegon, Michigan

Baby C., one of twins, a white female infant, was born in a local hospital on February 19, 1941. Her birth weight was two pounds four and one half ounces. The baby was immediately placed in an incubator where her rectal temperature was maintained at 99° F. Fifteen cubic centimeters of a cow's milk formula was given hourly by medicine dropper. The weight dropped to twenty-nine ounces where it remained for one week. Then followed a gradual gain to thirty-four ounces at the age of three weeks and the birth weight was regained at one month. Her weight was three pounds and thirteen ounces at two months when I first saw the baby. At this time the color was poor, appeared very weak, and was unable to maintain a normal temperature. The feeding was changed to a prepared milk mixture and the baby was offered two ounces, by Breck feeder, every three hours. All the vitamins as well as iron were added to the diet. The subsequent two weeks produced a sharp gain in weight to four pounds, ten ounces. Gastro-enteritis invaded the nursery at this time and the baby began to vomit and had many loose, green and blood-tinged stools. No organisms could be found in the stool culture. All food was stopped for twelve hours and fluids were pushed to tolerance by the subcutaneous route for one week. An acidulated protein milk was well tolerated at this time and the baby gained weight in spite of the numerous stools. A second attack of diarrhea two weeks later again forced discontinuance of food for twelve hours and repeated hypodermoclysis for another week. A blood count taken at this time revealed a hemoglobin of 30 per cent and red blood count of 1,580,000. Following a 55 c.c. transfusion of whole blood there was a marked improvement in the general appearance of the baby; the stools became normal in character and there was a progressive and sharp gain in weight. The baby was discharged in good general condition at the age of four months and three weeks, weighing five pounds and fourteen ounces.

### Discussion

I feel that this case is interesting because it reveals the tremendous recuperative powers that a baby may have in spite of the severe handicaps of extreme low weight, superimposed infection, and secondary anemia.

MSMS

# The Relation of Postgraduate Committees to Intern Instruction in Unaffiliated Hospitals

## Should the State Society Assume Any Responsibility for Such Intern Instruction?*

By Burton R. Corbus, M.D.
Grand Rapids, Michigan

In Michigan we believe that a State Medical Society should concern itself with intern instruction, and might well assume some responsibility for the character of that instruction. We believe that it is a justifiable addition to the postgraduate educational activities now under way. Our interest in furthering medical education is traditional. In the transactions of the Michigan State Medical Society in the years immediately succeeding the Civil War we find evidence that the Medical Society was pressing the faculty of the University to raise the standards of undergraduate medical education. In later years the department of Postgraduate Medical Education at the University was organized in compliance with the recommendation and urging of the Society. It was Carl D. Moll, M.D., a delegate from Michigan, who introduced in the House of Delegates of the A.M.A. a resolution asking for

*From the proceedings of the Associated State Committees on Postgraduate Medical Education, Cleveland, June 4, 1941. Subject assigned and presentation by request.

the appointment of a committee on "Qualifications for Specialists," which led to the establishment of the specialty boards. Our State Society long ago accepted the responsibility for postgraduate medical education. The present most successful Michigan plan of continuous education, a cooperative activity with the University of Michigan and Wayne University, is familiar to you. To J. D. Bruce, M.D., must go the major credit for the conception, development, and the direction of this activity.

There is then in Michigan, as in many other states, a traditional justification for a state society to extend its educational activities if and when it can make an efficient contribution.

In undergraduate education the medical school has carried complete responsibility, and this is proper, for as Doctor Sladen said in a recent article, "Medical schools and universities must be the fountain head for matters pedagogical in medicine." We suggest, however, that there is need for a forum where the more or less cloistered faculty and representatives from the private practice group can come together to discuss matters pertinent to undergraduate medical education. There is a still greater need that such a group be brought together for the study of problems incident to intern training in general and especially the training in the unaffiliated or socalled "nonteaching" hospitals. Two years ago our State Society initiated a movement which led to the forming of the "Michigan Conference Committee on Prelicensure Medical Education." To this committee the State Society sends special representatives, and on the committee are the deans of the two medical schools, representatives of the State Hospital Association, the State Board of Registration in Medicine and the State Society's Postgraduate Education Committee, together wth certain other especially interested men. We have made a start, but there are many angles to discuss, and we are still in the preliminary discussions.

I approach a brief survey of the intern situation from the viewpoint of a physician in private practice who, as an officer of the State Society over many years, has been in contact with the situation and is now chairman of this Conference Committee which is attempting to find a solution of the problem.

I am familiar with the increasing difficulties which the unaffiliated hospital, by which I mean one that is not connected with a medical school, is having in obtaining interns. I am aware of the weaknesses in the character of intern training in many of these hospitals. I perfectly recognize the fact that there are just not enough interns to go around, that hospitals accustomed to intern service are much disturbed by the situation, I am also familiar with the fact that there are in my state, as in most states, instances of the exploitation of the intern. The present method cannot be adjusted to meet the desires of all the hospitals now using interns. It perhaps can be adjusted to meet more satisfactorily the needs of the first- and second-year interns.

Out of the somewhat confusing picture which this intern situation presents there is one outstanding factor which, more than anything else, seems to account for our difficulties; there is lacking the element of a fixed responsibility. The faculty of the medical school recognizes that the student is not on graduation, fitted to meet the exigencies of private practice, yet in general it finds itself unable to accept responsibility further than for that limited number of interns for whom a place may be found in its own hospital or those hospitals which are very closely affiliated with it. It is true that some medical schools attempt to maintain a degree of responsibility for all their interns by withholding diplomas until the completion of the socalled fifth year, but the plan has not proved to be wholly satisfactory. The Boards of Registration in Medicine, in many states, insist that graduation shall be followed by one year of internship as a qualification for licensure. Its responsibility ends with requiring that only those hospitals certified by the American Medical Association shall be acceptable for such internship.

The American Medical Association's Council on Medical Education and Hospitals has done much toward raising hospital standards. Its bases of standardization are good, but you will agree that it is possible for a hospital to satisfy American Medical Association requirements for intern teaching and yet fail to provide an adequate intern training program; also you will agree that the surveys made at irregular intervals are not always adequate and at best are apt to deal with forms, and cannot take into consideration the intangibles which make one hospital desirable and another undesirable. There is need for some authoritative body to which the interested unaffiliated hospital may look to provide plans for a definitive course in intern teaching.

All through our country are community hospitals in which good professional service is rendered to the patient, where there is ample material and adequate facilities for teaching the graduate student, but in which little or no effort is made, and little interest shown in such teaching by the staff or hospital management. Many of these hospitals are certified as acceptable for intern teaching. Now, how can these hospitals be induced to look upon the education of the young doctor as an obligation second only to the main objective, that of providing adequate care to the sick with which objective such teaching is closely associated?

The question might be asked as to how large *must* such a hospital be to provide satisfactory intern training, and the answer is that it is not just the *size* of the

hospital. A general hospital which is well equipped, any one-hundred-bed hospital which has an interested hospital management and staff, should be able to satisfy the requirements for intern instruction. It is true that arrangements might have to be made for some supplementary training outside the hospital, say in the basic sciences, or in certain specialized departments. Indeed, such a community hospital might well meet the needs of the first-year intern more satisfactorily than the so-called teaching hospital. He would likely be given greater responsibility. There would be less didactic teaching. He probably would see more of the *Art* of medicine, and he would certainly find that sick folks respond favorably to many different methods of treatment. But the hospital must *want* to give proper intern training, and it must be willing to support that interest in a material way. It must look upon this as a public service comparable to the service to those desirous of entering the nursing profession. The staff must be willing to devote much more time than they do now, to teaching, and the board must be willing to set aside certain funds for the accomplishment of this purpose. No large expenditure of money is required, but if interns are to be sent away for some outside training it involves a certain expense and perhaps an extra intern or two.

There will be returns to the hospital, very definite returns, for that hospital which is furnishing adequate intern training will find that the quality of staff work will be improved, the hospital patient will get better service, the reputation of the hospital will be enhanced, and there will be a general community benefit beyond all this. Many of these well-trained interns will locate in the community, and from this group will come those who, in the course of time, will take the places of the retiring members of the staff.

It is the opinion of the Michigan Conference Committee on Prelicensure Education that the time has come to establish a working plan for a sound educational program for interns. This group ties up the interests of the medical schools, the hospitals, the State Medical Society, and the State Board of Registration in Medicine, and it will require the coöperation of all these various groups to make such a plan successful.

The Conference Committee believes that the responsibility for this no man's land of medical education, might well be placed upon the Postgraduate Committee of the State Society. This Committee now accepts the responsibility for the continuing education of the practicing physician. That responsibility should begin when the graduating student leaves the college door and should continue until he finally retires from practice. The Postgraduate Committee would form, after consultation with both the trained educator and the man in the field, a directional curriculum which would be adequate to satisfy the intern's educational needs. It should be sufficiently fixed that the character of the work could be graded, and elastic enough to fit the needs and character of the operating hospital. It would assume certain responsibility for the determination of hospital qualifications and for the supervision of the operation of the plan. It would work in close conjunction with the Conference Committee which is the policy-making Committee. It would also look on the Conference Committee as a liaison body with the different interested groups. Hospital staffs and hospital management will have to be educated that they may appreciate the needs for this work. This will be very definitely the function of the State Medical Society which is peculiarly fitted to bring this matter before hospital staffs and hospital boards of control, and to promote the undertaking in ways other than through the activity of its postgraduate committee.

The medical schools have a great interest in this problem and stand ready to give full coöperation. To their faculties the Postgraduate Committee will look for assistance in planning the curriculum, but the medical schools can give assistance in ways other than strictly pedagogical. Staffs of unaffiliated hospitals need the stimulus which would come from frequent contacts with the man in academic medicine.

I present to you the suggestion that the responsibility for the training of interns in the unaffiliated hospitals most logically falls into the program and objectives of the Postgraduate Committees. If, through the medium of the State Society, hospital management and hospital staffs can be brought to see the advantages of providing satisfactory intern training, and voluntarily accept the obligation for that training, much of the present-day problem of intern training and intern supply for the unaffiliated hospitals will be solved.

MSMS

# Localization, an Aid in the Diagnosis of Contact Dermatitis

**By George L. Waldbott, M.D.**
**Detroit, Michigan**

George L. Waldbott, M.D.

*M.D., University of Heidelberg, Germany, 1921. Charge of Allergy Clinics, Grace and Harper Hospitals, North End Clinic; Consulting Allergist, Children's and St. Mary's Hospitals; Fellow, American College of Physicians; Member of the two national allergy societies; Member, Michigan State Medical Society.*

■ The principal means of determining the causative agents in contact dermatitis are history and attention to the localization of the lesion. In the large number of cases in which hands and face are involved, the history is most informative; in most other cases, however, the localization is frequently so characteristic that a causative diagnosis is possible at a glance.

Sulzberger recently enumerated the favorite sites of dermatitis in relation to causes. A more detailed study of this matter, it was felt, might

be of advantage to those treating this disease. By means of questionnaires sent to allergists and dermatologists all over the United States, I hoped to make available their cumulative experience. They were asked to enter on a diagram any localization suggestive of its cause, common or unusual, which in their judgment was impressive enough to warrant recording. Emphasis was placed on the corroboration of the diagnosis of contact dermatitis by patch tests. Moreover, the correspondents were requested to enter the number of cases encountered for each area noted. This was not to be utilized for statistical purposes, but it was thought that a summation of all the data obtained would furnish information concerning the relative frequency of certain causes.

### Scope of This Study

Replies were received from 106. Some of the returns contained only the marked diagrams, others presented interesting comments and even complete case reports. Due to the immense number of substances recorded, and because this study was intended not for any particular occupation or regions of the country but for dermatitis patients selected at random, the two large groups of plant and occupational dermatitis were not considered. Neither one of these groups would lend itself to this study since here hands and face are practically always primarily involved. Dermatitis from plants and pollens also occurs on neck, back, and arms as far as the dress-line and, particularly in women and children, on legs and thighs when these areas are not covered by underwear or stockings. Concerning occupational dermatitis, certain activities such as cleaning, baking, painting, cooking, gardening, chauffeuring, as well as activities pertaining to sports and hobbies were included, since these activities are met with in the routine of an average household. A third group of cases had to be excluded because no typical localization exists, namely those of medicinal dermatitis. Here the history of exposure or application serves best for the etiological analysis.

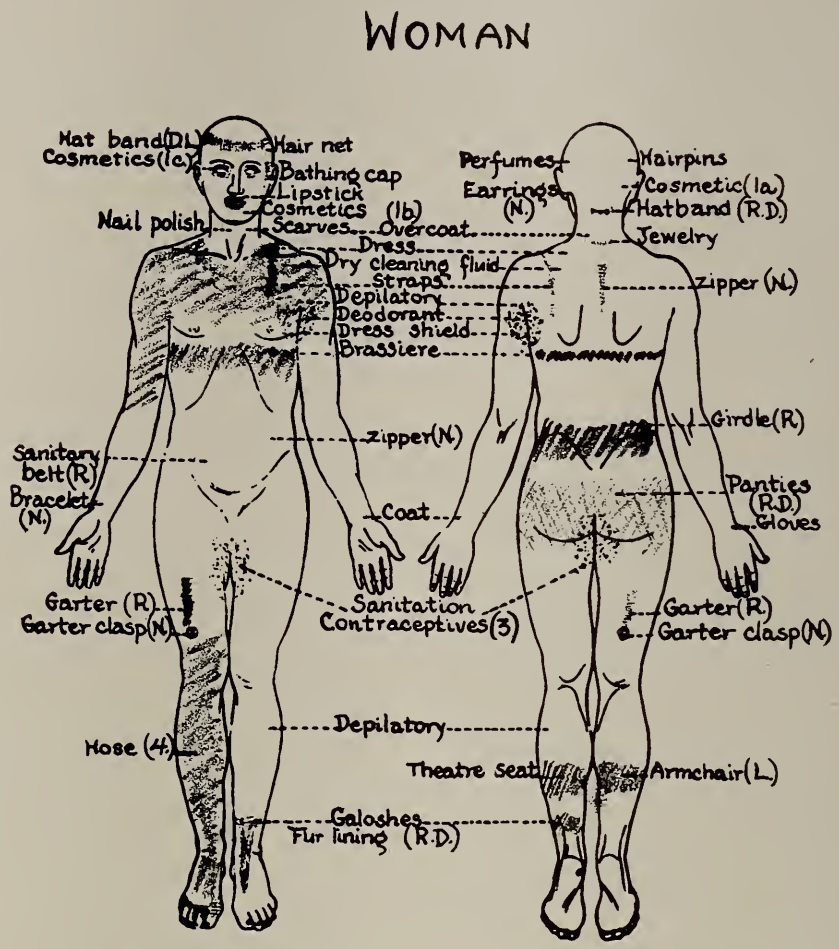
### Atypical Localizations

*Generalized Lesions.*—Before taking up our data proper, it is necessary to state the reasons which account for the spread of dermatitis over the whole body surface. Any dermatitis, no matter where it starts, and by what substance it is caused, may, if severe enough, become generalized, often to such an extent that the original areas will be no more distinguishable. For instance, instillation of a few drops of a ¼ per cent zinc sulfate solution into one eye caused a dermatitis involving every part of the skin. In atopic dermatitis due to ingestion or inhalation of antigenic substances mentioned in the replies, there was a case of atopic eczema on the flexor surfaces of arms and legs, and on the face. This became generalized when contact with a dog produced a new lesion from which the eruption spread. A patch test for dog hair was positive. A few substances may, by themselves, involve the whole body surface due to the manner in which they are applied, such as bathsalts, dusting powder, and soaps. With others, dissemination arises from multiple sites to which they had been applied simultaneously, for instance with nickel, matches, perfumes, depilatories, and deodorants.

*Secondary Contacts.*—These affect sites to which the causative agents had not been originally applied. Some lesions were encountered with what could be termed "paradoxical localizations" since the original site showed no or only little involvement. Dermatitis due to hair cosmetics usually does not affect the scalp, but the surrounding areas, namely eyelids, face, retroauricular spaces, and neck. Dermatitis from finger nail polish is encountered more frequently on face, neck, and flexor surface of the arms than on fingers, due to secondary contact of these areas with the fingers, especially during sleep. Genitalia and peri-anal regions are also thus involved, not only from fingernail polish but also from other cosmetics and plants, such as poison ivy. In two instances these areas were named as the seat of dermatitis from ephedrin nose drops and from eye drops containing nuprocaine, secondary contact having been brought about through the fingers at the toilet. In the case of a young man a certain hair tonic produced a lesion on the lateral aspect of the elbow upon which his head rested during sleep. A rather unique case was reported of a young woman with a dermatitis on the lower lip due to nickel. This was recognized when by chance the patient was seen touching her lip with her ring, a mannerism which was an expression of her nervousness. The ring finger exhibited only insignificant lesions.

Other possibilities of secondary contact are clothes impregnated with the irritating agent, and contact with other persons to whose skin the

substance had been applied. Dermatitis occurred on the face from pillow slip in one case and on the buttocks from underwear in another. Both had not been rinsed free of soap. A dry cleaner developed dermatitis from contact with a suit which contained traces of antiscabetic ointment.




Cosmetics:
(a) Hair—Wave setting fluids (Karaya gums, gum acacia, quince seed, orris root, etc.), dyes (anilin, metallic, vegetable), bleaching fluids (hydrogen dioxide), perfumes (oil of bergamot, eau de cologne, etc.), hair tonics (quinine, resorcin, salicyclic acid, etc.), pomades.
(b) Face—Powder, perfume, cold creams, cleansing and vanishing creams, rouge, powder puff (animal hair).
(c) Eyes—Mascara, eyelash dyes, rubber in eyelash curler, any agent affecting face, head, and hands.

Garments: Wool, cotton, silk or rayon lining, fur trimming, dyes, rubber.

Sanitary Items: Chemicals in douches, jellies, pessaries, vaginal suppositories, condoms, deodorants, perfumes, sanitary napkins.

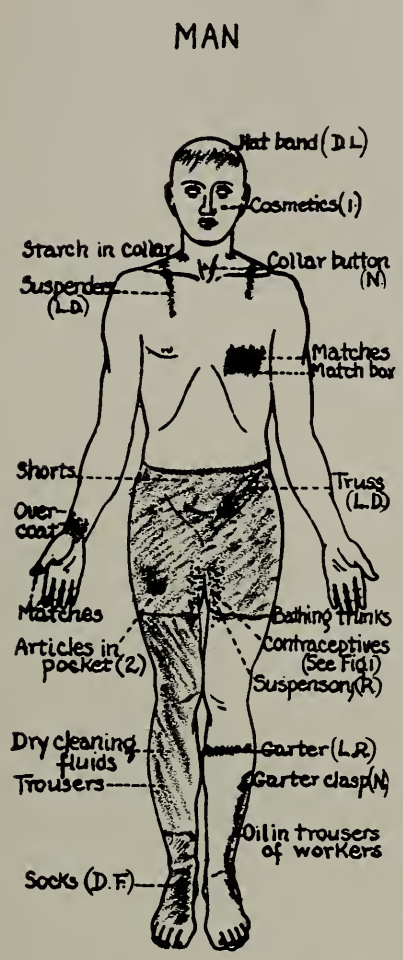
Hose: Silk, rayon, nylon, dyes, finishing fluids.

*Spread to Favorite Sites.*—Some parts of the body, especially the eyes and the peri-anal region, are particularly disposed to dermatitis and any irritation nearby will affect them. Other parts, such as scalp and nail beds, offer greater resistance to contactants. Nearly every substance producing dermatitis of the face, scalp, and neck, more or less affects the eyes. Instances of lid edema from lipstick and mouthwash containing sodium perborate were named. In a sixty-three year-old woman, a severe keratitis was due to a hair net applied at least two inches above the eyes. While this was the site of primary contact the principal lesions appeared in the eyes. Upon removal of the hair net the keratitis cleared up promptly.

The ankle may exhibit dermatitis associated with edema from sources in contact with the leg above. This may lead to diagnostic difficulties.

*Moisture.*—This may determine atypical sites of dermatitis. An eruption due to a dyed shirt

was described, affecting only a region of the belt-line where excessive perspiration took place, other places of contact being free. Dermatitis from wrist watch straps and spectacle frames

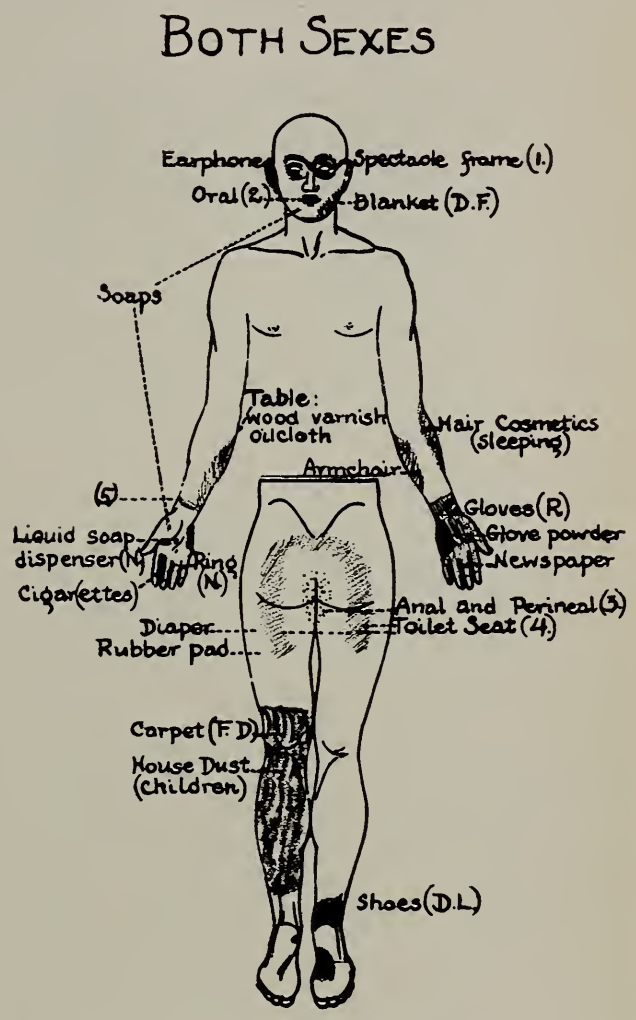



Cosmetics: Shaving cream, shaving soap, lotions, powder, lipstick, perfumes, other cosmetics through secondary contact with female.

Articles in Trouser Pockets: Matches, match box, coins (N), key (N), cigarette lighter (N), fluid in lighter, tobacco, key case (L.N.), wallet (L).

may occur only at times of excessive perspiration. In another case, the external aspect of the thigh was the seat of a lesion due to fertilizer spilled on wet overalls, while contact with the dry material was innocuous. A fur dermatitis spread through the middle of the chest down as far as the umbilical region when the fur became drenched by rain. A band-like or linear appearance of dermatitis in vertical or near vertical direction is always suggestive of a fluid agent dripping down the skin.

*Flare-up of Previous Lesions.*—The flare-up of a former lesion is not uncommon when contact elsewhere takes place with the same or another substance to which the skin is sensitive. The tips of the left fingers of an ophthalmologist with which he retracted the patient's eyelids had been affected by pantocain eyedrops, but through the




Spectacle Frames: (N), chromium, plastics, tortoise shell, horn, cleansing fluids for glasses.

Oral and Facial: Chewing gum, tooth pastes, tooth powders, mouth wash (sodium perborate), adhesive powder of dentures (karaya gum), seeds from apples, oranges, cigarette holders, mouthpieces of musical instruments, dyes in foodstuffs, drugs.

Sanitary Items: (See above.)

Toilet Seats: Varnish dyes, plastics, disinfectants (lysol), fabric of cover.

Watch: Watch strap (leather dyes, elastic glass). (R—Rubber, L—Leather, N—Nickel, F—Fabric, D—Dye).

use of rubber gloves these areas had completely healed. Eight months later these sites became reactivated simultaneously with a marked dermatitis on his left eye, when he applied the same drops to his own eye, even though his fingers were completely protected by rubber gloves. This mode of origin is demonstrated when a distant former lesion recurs as the result of a strongly positive patch test.

### Typical Localizations

The typical sites enumerated in the replies to the questionnaire will be discussed in three groups, those encountered in women (Fig. 1), in men (Fig. 2), and those common to both sexes (Fig. 3).

*Woman.*—Because of greater elaboration in clothing and more widespread use of cosmetics, woman is more exposed to dermatitis than man. This is apparent in the diagram. In clothes, fabrics may be responsible, as well as dyes. Lesions due to clothes are usually well defined. Dresses affect those parts of the body surface which are not covered by undergarments and hose. The characteristic V-shape or semi-circular outline of the dress on the neck, and the sharp limitation on the top line of the slip or brassiere, facilitate the diagnosis. In dress dermatitis, the domes of the arm pits are not affected, a fact which distinguishes a dress dermatitis from one caused by a rubber dress shield or by deodorants and depilatories which are applied to the axilla. Dermatitis due to a coat (wool, fur, dyes, and linings of linen, rayon, or silk) usually affects neck and arms up to a rather well defined line of demarcation distal to the dress sleeve. If short sleeves are worn, this line is on the upper arm, otherwise above the wrist. Lesions due to undergarments assume the pattern of the respective pieces. From shoulder straps or sanitary belts rubber dermatitis may arise on areas covered by them. Safety pins used for their support may induce nickel dermatitis. Equally well defined are lesions caused by the zipper of the dress or girdle, or by nickel hose supporters, etc.

The neck is subject to irritation from many causes. Friction with the edges of dresses and coats, contact with furs, scarfs, and jewelry produce lesions of different designs. One case was reported in which a curl, stiffened by hair-setting fluid, and another in which the red label inside of the hatband, produced an isolated patch of dermatitis. Dermatitis from face, mouth, and scalp is often transmitted to the neck. The postauricular spaces are the favorite seat of dermatitis from perfumes, hairpins (nickel and lacquer) and celluloid hair clips, the areas below the ear from earrings. Blepharitis and conjunctivitis with more or less pronounced lid edema are usually due to eyebrow dyes, face powders, creams, the rubber of lash curlers, as well as to contactants applied to practically any other part of the head and neck. On the wrist, lesions may arise from bracelets. In the palm of the left hand, nickel, celluloid, or plastics of a powder box or the handle of a hand mirror, may cause lesions, on the right hand a comb or brush.

The anal, vaginal, and perineal regions are susceptible to irritation from antiseptics, contraceptives (jellies, douches), condoms, pessaries, deodorants, and constituents of sanitary pads. Dermatitis due to hosiery, their fabrics, dyes, and finishing products (resins) is limited to the areas covered. A case of nickel dermatitis on the dorsum of the foot was found to be due to trimmings on the shoe.

*Man.*—In man, lesions due to clothes and cosmetics are less important than in woman. Fabrics and dyes of trousers may affect the legs from the lower edge of the underwear to the ankles. The lower border of this zone usually coincides with the sock line. Dry cleaning fluids applied to trousers involve the same areas; their fumes may also cause irritation on the face. The fabric and dye of an overcoat and its lining are favored causes for dermatitis on the base of the thumb, on the wrist, and on the neck. On the hips, corresponding lesions may occur from shorts and bathing trunks. Shaving soaps and after-shaving lotions, creams and styptics may produce dermatitis on the face. Cosmetics, especially lipstick, applied to the female face, have induced dermatitis in man. Lesions on the legs covering areas corresponding to the pockets are relatively common in man. Articles such as coins, keys, tobacco, matches, match boxes, cigarette lighters, fluid in these lighters are responsible. Match dermatitis is also encountered on an area of the chest corresponding to the shirt pocket and another one on the fingers if matches are lighted with the finger nails. Penis and anterior part of scrotum are subject to the same irritants as the corresponding areas in woman, either through primary application or through secondary contact during cohabitation. The lateral aspect of the lower leg may be the seat of dermatitis from oil and gasoline dripping down into this region.

*Both sexes.*—Among the causes common to both sexes (Fig. 3) are spectacle frames. This dermatitis extends from the bridge of the nose, about the eyes into the postauricular portions or the head. The face is primarily subject to dermatitis from plants, insect sprays (pyrethrum),

and volatile oils. Kapok and feathers in pillows and mattress were found to affect areas about the ear, one side usually exhibiting more extensive lesions than the other. Similarly, dermatitis from the wool, cotton, or dye of a blanket covering the face at night may be unilateral. Plastics in telephone receiver and earphones often produce a clear impression on the ears. The seeds of apples, oranges, and grapefruits, and possibly other foods which contain oils, may give rise to cheilitis and dermatitis about the mouth and chin. Other sources named at this site were ingredients of dentifrices, mouth washes, chewing gum, adhesive powders for dentures, and the synthetic materials from which dentures are made. Cigarette holders and pipes may affect both the mouth and the respective fingers. Practically any constituent of eye and nose drops may be the source of lesions about eyes and nose which often extend down in a more or less vertical streak as far as the chest. These may involve the whole face if the medicine was applied while the face was wet.

Typical localizations from which a diagnosis could be readily made were noted on the internal flexor surface of the forearm in contact with an oilcloth table cover or with various kinds of wood and varnish while resting the arms on the table. Also easily identified were lesions on the wrist of hand and forearm from varnish, leather, mohair, or upholstering of an armchair. The outline of bathing suits is occasionally seen not only because of their dyes and fabrics (rubber!), but also because they form a protective border against sun tan oil applied to the skin. On the hands, the interdigital webs remain free in dermatitis from rubber gloves since they have no intimate contact with these areas, while lesions may be caused here by soaps and the lining (animal hair) and dyes of cloth gloves. The webs of the finger are subject to fungus infections, an important point in differential diagnosis. Lesions on the wrist are frequently caused by wrist watches and watch straps.

Dermatitis from toilet seats was mentioned frequently in this survey. Located on the buttocks it is due to either varnish, paint, celluloid, plastics, and occasionally to disinfectants (lysol). Since plant oils, especially those of poison ivy, have been used orally for treatment of plant dermatitis, pruritus ani has been caused by their elimination in the feces. A case of contact dermatitis from oil of walnut in the anal region, caused in a similar manner, was recorded. Control tests with oils from other nuts produced no ill effect. In lesions in the peri-anal regions, the hard rubber nozzles of enemas, toilet paper, cathartics, and suppositories through their content of cocoa butter and various drugs should be considered.

On the feet, a differential diagnosis between ringworm infections and contact dermatitis from shoes should take into consideration that in the latter, the areas between the toes are not affected; instead, lesions develop where friction or tight contact with the shoe takes place (perspiration!) on the tops of the toes, especially of the first one, on the dorsal aspect of the foot, on the instep and heel. Leather, leather dyes, fabrics and dyes of lining and trimmings, or shoe polish and cleaning fluids may be responsible.

### Domestic Occupations

Among the innumerable sources of occupational dermatitis named in the replies to the questionnaire, only those pertaining to home occupations are of interest here. A complete description for each localization is impossible. They are almost always on the exposed parts of the body, particularly the hands and face.

The activities of a housewife lead to eruptions on fingers and hands caused most frequently by soap. Other sources are scouring powder, turpentine, gasoline, naphtha, moth balls, and silver polish. The rubber handle of a vacuum cleaner caused a typical pattern on the right hand and the nickel button of a soap dish another one which was limited to a dime sized area in the palm. From handling food, dermatitis due to celery, carrots, oranges, and lemon rind were named. In citrous fruits the oils of the rinds, as well as the dyes used to give them "natural" color, may be responsible for lesions. A case of marked dermatitis in the palm of the right hand from grating horseradish was encountered. Eating grapefruit produced a lesion on the left hand with which the fruit was held. Metal, paint, and wood of a knife handle, the metal in faucets and door knobs were named as irritants. Sewing and knitting, contact with scissors, thimble, needles, and yarn, may induce well defined designs on the hand. A case of nickel dermatitis on the hand was due to contact with a cocktail shaker. Among the flowers named as causes of lesions, chrysanthemums, primrose, tulips, bachelor-buttons, hollyhocks, appeared most frequently in the re-

*(Continued on Page 415)*

# Michigan State Medical Society Roster 1942

[An asterisk (*) preceding a name indicates active military service]

## Allegan County

Beckett, M. B. ... Allegan
Benning, H. M. ... Allegan
Brown, Lewis Freeman ... Otsego
Brunson, Eugene T. ... Ganges
Clough, William J. ... Saugatuck
Dickinson, C. A. ... Wayland
Flinn, C. C. ... Allegan
Hamelink, M. H. ... Hamilton
Hudnutt, Orrin Dean ... Plainwell
Johnson, E. B. ... Allegan
Johnson, H. H. ... Martin
Mahan, James E. ... Allegan
Medill, W. C. ... Plainwell
Osmun, E. D. ... Allegan
Ramseyer, Gladwin E. ... Plainwell
Rigterink, George H. ... Hamilton
Roberts, M. S. ... Fennville
Shepard, Lyle ... Otsego
*Stuch, Howard T. ... Camp Polk, La.
Stuck, Olin H. ... Otsego
TenPas, H. W. ... Holland
Vaughan, W. R. ... Plainwell
Van Der Kolk, Bert ... Hopkins
Walker, Robert J. ... Saugatuck

## Alpena-Alcona-Presque-Isle Counties

Bunting, J. W. ... Alpena
Burkholder, H. J. ... Alpena
Carpenter, Clarence A. ... Onaway
Constantine, A. ... Harrisville
Foley, E. L. ... Alpena
Hier, Edward A. ... Alpena
Kessler, Harold ... Alpena
Lister, George F. ... Hillman
Moffat, Gordon B. ... Rogers City
Monroe, Neil C. ... Rogers City
Nesbitt, Wm. E. ... Alpena
Newton, W. B. ... Alpena
O'Donnell, F. J. ... Alpena
Parmenter, E. S. ... Alpena
Purdy, John W. ... Lachine
*Ramsey, J. A. ... Fort Custer
Rutledge, S. H. ... Rogers City
Rutledge, S. H., Jr. ... Rogers City
Secrist, Leo F. ... Alpena
Wienczewski, Theophile ... Alpena

## Barry County

Altland, J. K. ... Hastings
Farwell, Byron E. ... Delton
Finnie, R. G. ... Hastings
Fisher, Gordon F. ... Hastings
Gwinn, A. B. ... Hastings
Harkness, Robert B. ... Hastings
Keller, Guy C. ... Hastings
Lathrop, Clarence P. ... Hastings
Lofdahl, Stewart ... Nashville
Lund, Chester A. E. ... Middleville
*McIntyre, K. S. ... Pensacola, Fla.
Morris, Edgar T. ... Nashville
Wedel, Herbert S. ... Hastings

## Bay-Arenac-Iosco Counties

Alcorn, Kent ... Bay City
Allen, A. D. ... Bay City
Andrews, F. T. ... Bay City
Ash, C. W. ... Bay City
Asline, J. N. ... Essexville
Austin, Justis ... Tawas City
Baker, Charles H. ... Bay City
Ballard, Sylvester L. ... Bay City
Ballard, W. R. ... Bay City
Boulton, A. O. ... Gladwin
Brown, G. M. ... Bay City
Cobb, Thomas H. ... Bay City
Connelly, C. J. ... Bay City
Criswell, R. H. ... Bay City
Dardas, M. J. ... Bay City
DeWaele, Paul L. ... Bay City
Drummond, Fred ... Kawkawlin
Dumond, V. H. ... Bay City
Ely, Nina ... Bay City
Foster, L. Fernald ... Bay City
Freel, John A. ... Bay City
Gamble, W. G., Jr. ... Bay City
Gronemeyer, W. H. ... Bay City
Groomes, Charles ... Bay City
Grosjean, J. C. ... Bay City
Gunn, Robert ... Standish
*Hagelshaw, G. L. ... Denver, Colo.
Hall, R. F. ... Bay City
Hasty, Earl ... Whittemore
Healy, Gaillard H. ... Bay City
Hess, C. L. ... Bay City
Heuser, Harold H. ... Bay City
Horowitz, S. Franklin ... Bay City
Huckins, E. S. ... Bay City
Hughes, E. C. ... Bay City
Husted, F. Pitkin ... Bay City
Jacoby, A. H. ... Bay City
Jens, Otto ... Essexville
Jones, Jerry M. ... Bay City
Keho, John ... Bay City
Kerr, William ... Bay City
Kessler, Mana ... Bay City
Kessler, S. ... Bay City
Knobloch, Howard ... Bay City
Lane, Milton ... Bay City
Lerner, David ... Au Gres
McDonnell, Walter R. ... Pinconning
McEwan, J. H. ... Bay City
MacPhail, Joseph ... Bay City
Medvesky, M. J. ... Bay City
Miller, Edwin C. ... Bay City
Mitton, O. W. ... East Tawas
Moore, George W. ... Bay City
Moore, Neal R. ... Bay City
Mosier, D. J. ... Bay City
Perkins, Roy C. ... Bay City
*Reutter, C. W. ... Mt. Clemens
Scrafford, Royston Earl ... Bay City
Shafer, H. C. ... Bay City
Sherman, R. N. ... Bay City
Slattery, M. R. ... Bay City
Staley, Hugh ... Omer
Stinson, W. S. ... Bay City
Stuart, Kenneth ... Bay City
Swantek, Charles M. ... Bay City
*Tarter, Clyde S. ... Alexandria, La.
*Timreck, Harold A. ... Douglas, Ga.
Tupper, Virgil L. ... Bay City
Urmston, Paul R. ... Bay City
Warren, E. C. ... Bay City
Wilcox, J. W. ... Bay City
Wilson, Thomas G. ... Bay City
Wittwer, E. A. ... Bay City
Woodburne, H. L. ... Bay City
Zaremba, Aloysius J. ... Bay City
Ziliak, A. L. ... Bay City

## Berrien County

Allen, J. U. ... Benton Harbor
Allen, Robert C. ... St. Joseph
*Bartlett, W. M. ... Camp Gordon, Ga.
Belsley, Frank K. ... Benton Harbor
Bliesmer, A. F. ... St. Joseph
Brown, F. W. ... Watervleit
Brown, G. W. ... Buchanan
Cawthorne, H. J. ... Benton Harbor
Conybeare, R. C. ... Benton Harbor
*Crowell, Richard ... Dearborn
Dunnington, R. N. ... Benton Harbor
Eidson, Hazel ... Berrien Springs
*Ellet, Wm. C. ... San Francisco, Calif.
Emery, Clayton ... St. Joseph
Faber, Michael ... Benton Harbor
Friedman, Morris ... New Buffalo
Gillette, Clarence H. ... Niles
Gunn, J. W. ... Watervleit
Hanna, P. G. ... St. Joseph
Harper, Ina ... Benton Harbor
Harrison, L. L. ... Niles
Hart, Russell T. ... Niles
Helkie, William L. ... Three Oaks
Henderson, Fred ... Niles
Henderson, Robert ... Niles
Herring, Nathaniel A. ... Niles
Hershey, Noel J. ... Niles
Howard, R. B. ... Benton Harbor
Huff, H. D. ... Niles
King, Frank, Jr. ... Benton Harbor
King, Frank A. ... Benton Harbor
Kok, Harry ... Benton Harbor
Littlejohn, William ... Bridgman
McDermott, J. J. ... St. Joseph
Merritt, Charles W. ... St. Joseph
Miller, E. A. ... Berrien Springs
Mitchell, Carl A. ... Benton Harbor
Moore, T. Scott ... Niles
Ozeran, Charles J. ... Benton Harbor
Pritchard, H. M. ... Niles
*Reagan, Robert E. ... Great Lakes, Ill.
Rein, Gerald ... Benton Harbor
Richmond, D. M. ... St. Joseph
Rosenberry, A. A. ... Benton Harbor
Ruth, J. G. ... Benton Harbor
Schairer, Wm. W. ... Coloma
Smith, W. A. ... Berrien Springs
*Sowers, Bouton F. ... Benton Harbor
Strayer, J. C. ... Buchanan
Thorup, Don W. ... Benton Harbor
Waterson, R. S. ... Niles
Westervelt, H. O. ... Benton Harbor
Yeomans, T. G. ... St. Joseph

## Branch County

Andrews, Frank A.....Coldwater
Bailey, J. E.....Bronson
Beck, Perry C.....Bronson
Bien, W. J.....Coldwater
*Chipman, E. M.....Quincy
Culver, Bert W.....Coldwater
Far, S. E.....Quincy
Fraser, R. J.....Coldwater
Joerin, William.....Coldwater
McLain, R. W.....Jackson
Meier, H. J.....Coldwater
Mooi, H. R.....Union City
*Olmsted, Kenneth L.....
.....Camp Robinson, Ark.
Phillips, F. L.....Bronson
Schneider, H. A.....Coldwater
Schultz, Samuel .....Coldwater
*Scovill, H. A. .....Fort Custer
Smith, Lloyd .....Coldwater
Thomas, J. A.....Coldwater
Wade, R. L.....Coldwater
Walton, N. J.....Quincy
Weidner, H. R.....Coldwater

## Calhoun County

Abbott, Nelson.....Homer
Amos, Norman H.....Battle Creek
Baribeau, R. H.....Battle Creek
Barnhart, Samuel E.....Battle Creek
Becker, Harry F.....Battle Creek
Beuker, Herman .....Marshall
Braham, W. G.....Battle Creek
Brainard, C. W.....Battle Creek
Campbell, Alice .....Albion
Campbell, R. J.....Battle Creek
*Capron, Manley J.....
.....Parris Island, S. C.
Church, Starr K.....Marshall
*Chynoweth, W. R. .....
.....Fort Sam Houston, Texas
Cooper, J. E.....Battle Creek
Curless, Grant R.....Battle Creek
Curry, Robert K.....Homer
Derickson, E. C.....Burlington
Dickson, A. R.....Battle Creek
Dodge, Warren M., Jr.....Battle Creek
Elliott, James A.....Grand Rapids
Fahndrich, C. G.....Battle Creek
Fairbanks, Stephen.....Albion
*Finch, D. L.....Portsmouth, Va.
*Forsyth, J. F.....Kelly Field, Texas
Fraser, R. H.....Battle Creek
Funk, L. D.....Athens
Gething, Joseph W.....Battle Creek
Giddings, A. M.....Battle Creek
Gilfillan, Margery J.....Battle Creek
Godfrey, Willoughby L...Battle Creek
Gorsline, Clarence S.....Battle Creek
Graubner, F. L.....Marshall
Hafford, Alpheus T.....Albion
*Hale, Claude E.....
.....Fort Sam Houston, Tex.
*Hansen, Harvey C.....
.....Fort Benning, Ga.
Haughey, Wilfrid.....Battle Creek
Heald, C. W.....Battle Creek
Henderson, Louis M.....Albion
Henderson, Phillip .....Albion
Herzer, Henry A.....Albion
Holes, Jesse J.....Battle Creek
Holtom, B. G.....Battle Creek
Howard, W. L.....Battle Creek
Hubly, James W.....Battle Creek
Humphrey, Archie Edward....Marshall
*Humphrey, Arthur A.....
.....Parris Island. S. C.
Jesperson, Lydia .....Battle Creek
Jones, T. K.....Marshall
Keagle, Leland R.....Battle Creek
Keeler, K. B.....Albion
Kellogg, Carrie Staines..Battle Creek
Kellogg, John H.....Battle Creek
Kingsley, Paul C.....Battle Creek
Kinde, M. R.....Battle Creek
Kolvoord, Theo.....Battle Creek
LaFrance, N. Francis....Battle Creek
Landon, Charles C.....Battle Creek
*Levy, Joseph.....Fort Mead, Md.
Lewis, W. B.....Battle Creek
Lowe, H. M.....Battle Creek
*Lowe, Kenneth..Parris Island, S. C.
Lowe, Stanley T.....Battle Creek
MacGregor, Archibald E...Battle Creek
McNair, L. N.....Albion
Meister, F. O. .....Battle Creek
Melges, F. J.....Battle Creek
Mercer, C. M.....Battle Creek
Morrison, D. B.....Tekonsha
Mortensen, M. A.....Battle Creek
Moshier, Bertha .....Battle Creek
*Mullenmeister, H. F.....
Mustard, Russell .....Battle Creek
Norton, Richard C.....Battle Creek
Patterson, Adonis .....Harrison
Putman, W. N.....Battle Creek
Robins, Hugh.....Marshall
Rorick, Wilma Weeks.....Battle Creek
Rosenfeld, Joseph E.....Battle Creek
*Royer, C. W.....
.....Fort Sam Houston, Tex.
Selmon, Bertha L.....Battle Creek
Sharp, A. D.....Albion
Shipp, Leland P.....Battle Creek
Sibilsky, A. Clark.....Battle Creek
Simpson, Robert S.....Battle Creek
*Slagle, Geo. W...Parris Island, S. C.
Sleight, James D. .....Battle Creek
Sleight, Raymond D.....Battle Creek
*Smith, T. C. .....Canadian Army
Smith, Wm. Marshall...Battle Creek
Stadie, Wendall.....Battle Creek
Stiefel, Richard .....Battle Creek
Tannenholz, Harold S.....Battle Creek
Taylor, Clifford B.....Albion
Thompson, Oliver E.....Battle Creek
*Toms, Roland E.....Fort Custer
Upson, W. O.....Battle Creek
Van Camp, E.....Battle Creek
Vandervoort, Wm.....Battle Creek
Verity, Lloyd E.....Battle Creek
Vollmer, Maud J.....Moline, Ill.
Walters, F. R.....Battle Creek
Walters, Royal W.....Battle Creek
Watson, Bernard .....Battle Creek
Wencke, Carl G.....Battle Creek
Winslow, Rollin C.....Battle Creek
Winslow, Sherwood B.....Battle Creek
Zindler, Geo. A.....Battle Creek
*Zinn, Karl .....Rockford, Ill.

## Cass County

Adams, U. M.....Marcellus
Clary, R. I.....Dowagiac
Cunningham, E. M.....Cassopolis
Hickman, John .....Dowagiac
Kelsey, James H.....Cassopolis
Loupee, George .....Dowagiac
Loupee, S. L.....Dowagiac
Lyman, W. R.....Dowagiac
Newsome, Otis .....Cassopolis
Pierce, Kenneth C.....Dowagiac
Rice, Franklin .....Cassopolis
Switzer, Lars W.....Flint
Zwergel, E. H.....Cassopolis

## Chippewa-Mackinac Counties

Bandy, Festus Cecil..Sault Ste. Marie
*Birch, William.....Fort Custer
Blain, James G.....Sault Ste. Marie
Blair, H. M.....Sault Ste. Marie
Conrad, George A....Sault Ste. Marie
Cornell, Eliphalet A...Sault Ste. Marie
Cowan, Donald .....Sault Ste. Marie
Gilfillan, E. O.....Sault Ste. Marie
*Hakala, L. J.....Sault Ste. Marie
Littlejohn, David ....Sault Ste. Marie
McBryde, Lyman M...Sault Ste. Marie
Mertaugh, W. F.....Sault Ste. Marie
Moloney, F. J.....Sault Ste. Marie
Montgomery, B. T.....Sault Ste. Marie
Rhind, E. S.....St. Ignace
Scott, Dwight F.....Sault Ste. Marie
Vegors, Stanley H.....Sault Ste. Marie
Wallen, LeRoy J.....Sault Ste. Marie
Webster, E. H.....Sault Ste. Marie
Willison, C. .....Sault Ste. Marie
Wood, Neal.....Mackinac Island
Yale, I. V.....Sault Ste. Marie

## Clinton County

Bennett, George W.....Elsie
Elliott, Bruce R.....Ovid
Foo, Charles T.....St. Johns
Frace, Guy H.....St. Johns
Hart, Dean W.....St. Johns
Henthorn, A. C.....St. Johns
Ho, Thomas Y.....St. Johns
Luton, F. E.....St. Johns
McWilliams, W. B.....Maple Rapids
Russell, Sherwood R.....St. Johns
Wahl, George Edward .....St. Johns

## Delta-Schoolcraft Counties

Bachus, Arthur .....Powers
Benson, G. W.....Escanaba
Boyce, D. H.....Escanaba
Carlton, A. J.....Escanaba
Chenoweth, Nancy R.....Escanaba
Clausen, C. H. .....Gladstone
Frenn, N. J.....Bark River
Fyvie, James .....Manistique
Groos, Harold Quinten.....Escanaba
Groos, Louis P.....Escanaba
Hult, Otto S.....Gladstone
Kitchen, A. S.....Escanaba
Lemire, William A.....Escanaba
Lindquist, N. L.....Manistique
Long, Harry W.....Escanaba
Miller, Albert H.....Gladstone
Mitchell, James D.....Gladstone
Moll, G. W.....Escanaba
Shaw, George A.....Manistique
Tonney, Fred O.....Escanaba
Walch, J. J.....Escanaba

## Dickinson-Iron Counties

Addison, E. R.....Crystal Falls
Alexander, W. H.....Iron Mountain
Andersen, E. B.....Iron Mountain
Boyce, George H.....Iron Mountain
Browning, James L.....Iron Mountain
Fiedling, William .....Norway
Fredrickson, Geron ....Iron Mountain
*Gloss, Kenneth E...San Angelo, Tex.
*Haight, Harry H...San Diego, Calif.
Hamlin, Lloyd E...St. Louis, Missouri
Hayes, R. E.....Sagola
Huron, W. H.....Iron Mountain
Irvine, L. E.....Iron River
Kofmehl, William J.....Stambaugh
Levine, D. A.....Iron River
McEachran, Hugh D...Iron Mountain
Menzies, Clifford .....Iron Mountain
Retallack, R. C. .....Iron River
Smith, Donald R.....Iron Mountain
White, Robert E.....Stambaugh
Witkow, Alexander.....Iron Mountain

## Eaton County

Anderson, K. A.....Austin, Texas
Arner, Fred Levi.....Bellvue
Brown, B. Philip.....Charlotte
Burdick, Austin F.....Grand Ledge
Carothers, Daniel J. .....Charlotte
Engle, Paul .....Olivet
Goff, S. B.....Eaton Rapids
Hannah, H. W.....Charlotte
Hargrave, Don V.....Eaton Rapids
Huber, Charles D.....Charlotte
Huyck, Stanhope Pier .....Sunfield
Imthun, Edgar F.....Grand Ledge
McLaughlin, C. L. D. ...Vermontville
Moyer, H. A.....Charlotte
Myers, Albert W.....Potterville
Paine, E. Madison, Jr...Grand Ledge
Paine, E. M.....Grand Ledge
Quick, Phil H.....Olivet
Rickerd, Vinton J.....Charlotte
Sassaman, F. W.....Charlotte
Sevener, C. J.....Charlotte
Sevener, Lester G.....Charlotte
Sheets, A G.....Eaton Rapids
Stanka, Andrew George...Grand Ledge
Stimson, C. A.....Eaton Rapids
Stucky, George .....Charlotte
Van Ark, Bert.....Eaton Rapids
Wilensky, Thomas....New York City

## Genesee County

Adams, Chester .....Grand Blanc
Andrews, N. A. C.....Flushing
Anthony, George E.....Flint
Backus, G. R.....Flint
Bahlman, Gordon H.....Flint
Baird, James .....Flint
Baker, Henry K.....Flint
Bald, Frederick W.....Flint
Barbour, Fleming A. .....Flint
Baske, Franklin W.....Flint
Bateman, L. G.....Flint
Benson, J. C.....Flint
Bernstein, Eli N. .....Flint
Biggar, H. R.....Flint
Bishop, D. L.....Flint
Blakeley, Arthur C.....Flint
Bogart, Leon M.....Flint
Boles, William P.....Flint
Bonathan, A. T.....Flint
Bradley, Robert .....Flint
Brain, R. Gordon.....Flint
Branch, Hira E. .....Flint
Brasie, D. R.....Flint
Briggs, Guy D.....Flint
Bruce. Wm. W.....Swartz Creek
Burkett, L. V.....Flint
Burnell, Max .....Flint
Burnside, Howard B. .....Flint
Chambers, Myrton S.....Flint
Chandler, M. E.....Flint
Charters, John H.....Fenton
Childs, Lloyd H.....Flint
Clark, Clifford P.....Flint
Cohen, Evelyn.....Flint
Colwell, C. W.....Flint
Connell, J. T.....Flint
Conover, G. V.....Flint
Conover, T. S.....Flint
Cook, Henry .....Flint
Covert, F. L.....Gaines
Crane, Harley .....Flint
Credille, B. A.....Flint
Curry, George .....Flint
Curtin, J. H.....Flint
Del Zingro, N.....Davison
Dimond, E. G.....Flint
Edgerton, A. C.....Clio
Eickhorst, Thomas.....Flint
Elliott, H. B.....Flint
Farhat, M. M.....Flint
Finkelstein, T. .....Flint
Flynn, S. T.....Flint
Foley, S. I.....Flint
Fuller, H. T.....Mt. Morris
Gelenger, S. M.....Flint
Gibson, Edward D.....Flint
Gleason, N. Arthur.....Flint
Goering, George R.....Flint
Golden, H. Maxwell.....Flint
Goodfellow, B. .....Flint
Gorne, S. S.....Flint
Graham, Hugh W.....Mt. Morris
Gray, Edwin F.....Flint
Grover, Harold F.....Flint
Guile, Earle .....Flint
Guile, G. S.....Flint
Gundry, G. L.....Grand Blanc
Gutow, Julius.....Flint
*Hague, R. F. .....Dearborn, Mich.
Halligan, Raymond S.....Flint
Hamady, Ruth B.....Flint
Handy, John W.....Flint
Harper, Homer .....Flint
Harrison, L. D.....Flint
Hays, George A.....Flint
Hiscock, H. H.....Flint
Hufton, Willard L.....Flint
Houston, James .....Swartz Creek
Hubbard, William B.....Flint
Jefferson, Harry A.....Flint
Kaleta, Edward .....Flint
Kaufman, Lewis D.....Flint
Kirk, A. Dale.....Flint
Kretchmar, A. H.....Flint
Kurtz, John J.....Flint
Lambert, L. A.....Flint
Lavin, Kathryn R.....Flint
Leach, J. L.....Flint
Livesay, Jackson E.....Flint
Logan, G. W.....Flushing
MacDuff, R. B.....Flint
MacGregor, D. M.....Flint
MacGregor, J. C.....Flint
MacGregor, R. W.....Flint
Macksood, Joseph .....Flint
Marsh, H. L.....Flint
Marshall, William H.....Flint
Mason, Elta .....Flint
Matthewson, Guy C.....Flint
McArthur, A. .....Flint
McArthur, R. H.....Clio
McGarry, Burton G.....Fenton
McGarry, R. A.....Flint
McKenna, O. W.....Flint
Miller, Edwin E.....Flint
Miltick, Anthony J.....Flint
Miner, Frederick B.....Flint
Moore, John W.....Flint
Moore, Kenneth B.....Flint
Morrish, Ray S.....Flint
Morrissey, V. H.....Flint
Moiser, Edward C.....Otisville
Olson, James A.....Flint
O'Neil, C. H.....Deckerville
Orr, J. Walter.....Flint
Pfeifer, Archibald C.....Mt. Morris
Phillips, R. L.....Flint
Pratz, O. C.....Flint
Preston, Otto J.....Flint
Probert, C. C.....Flint
Randall, H. E.....Flint
Reeder, Frank E.....Flint
Reid, Wells C.....Goodrich
Rice, Ephraim D.....Flint
Richeson, V.....Flint
Rieth, George F.....Flint
Roberts, Floyd D.....Flint
Rowley, James A.....Flint
Rundles, Walter Z.....Flint
Rynearson, Wm. J.....Fenton
Sandy, K. R.....Flint
Scavarda, Chas. J.....Flint
Schiff, B. A.....Flint
Scott, R. D.....Flint
Shantz, L. O.....Flint
Shipman, Charles W.....Flint
Sleeman, Blythe R.....Linden
Sheeran, Daniel H.....Flint
Smith, E. C.....Flint
Smith, Maurice J.....Flint
Sniderman, Benjamin .....Flint
Snyder, Charles E.....Swartz Creek
Sorkin, S. S.....Flint
Steinman, F. H.....Flint
Stephenson, Robert A.....Flint
Stevenson, W. W.....Flint
Streat, R. W.....Flint
Stroup, Clayton W.....Flint
Sutton, George R.....Flint
Sutton, M. R.....Flint
Thompson, Alvin .....Flint
Treat, D. L.....Flint
Van Gorder, George F.....Davison
Vary, Edwin P.....Flint
Walcott, C. G.....Fenton
Ward, Nell .....Flint
Ware, Frank A.....Clayton, Mo.
Wark, D. R.....Flint
White, Carl H.....Fenton
White, Herbert .....Flint
White, Perry.....Clio
Williams, W. S.....Flint
Willoughby, G. L.....Flint
Willoughby, L. L.....Flint
Wills, T. N.....Flint
Winchester, Walter H.....Flint
Woughter, Harold W.....Flint
Wright, D. R.....Flint
Wright, G. R.....Montrose
Wyman, J. S.....Flint

## Gogebic County

Anderson, Charles E.....Bessemer
Crosby, Theodore S.....Ironwood
Eisele, D. C.....Ironwood
Gertz, M. A.....Ironwood
Gorrilla, A. C.....Ironwood
Gullickson, Miles .....Ironwood
Holm, Henry .....Ironwood
Lieberthal, M. J.....Ironwood
Lieberthal, Paul .....Ironwood
Maccani, W. L.....Ironwood
Maloney, F. G. H.....Ironwood
Nezworski, H. T.....Ramsey
O'Brien, A. J.....Ironwood
Pierpont, D. C.....Ironwood
Pinkerton, H. A.....Ironwood
Rees, Thomas R.....Ironwood
Reid, John D.....Ironwood
Reynolds, F. L.....Ironwood
Stevens, Charles E.....Bessemer
Tew, William Ellwood.....Bessemer
Tressel, H. A.....Wakefield
Urquhart, C. C.....Ironwood
Wacek, W. H.....Ironwood

## Grand Traverse-Leelanau-Benzie Counties

Bauman, Milton .....Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Jay J.....Kingsley
Brownson, Kneale .....Traverse City
Bushong, B. B.....Traverse City
Covey, E. L. .....Honor
Ellis, Claude I.....Suttons Bay
Gauntlett, J. W.....Traverse City
Grawn, F. A.....Traverse City
*Hamilton, Earl E.....Overseas
Holliday, George A.....Traverse City
Huene, Nevin .....Traverse City
Huston, Russell R.....Elk Rapids
Jerome, Jerome T.....Traverse City
Kitson, V. H.....Elk Rapids
*Knapp, Joseph L...Camp Croft, S. C.
Kyselka, H. B.....Traverse City
Lemen, Charles E.....Traverse City
Lentz, R. J.....Traverse City
Lossman, R. T.....Traverse City
Murphy, Fred E. .....Cedar
Nickels, M. M.....Traverse City
Osterlin, Mark .....Traverse City
Rinear, Edwin .....Traverse City
Sheets, R. Philip .....Traverse City
Sladek, E. F.....Traverse City
Stone, Fordyce, H.....Beulah
Swanton, L. .....Traverse City
Swartz, F. G.....Traverse City
Thacker, Fred R.....Frankfort
Thirlby, E. L.....Traverse City
Thompson, T. W.....Traverse City
Trautman, Frederick D.....Frankfort
Van Leuven, B. H.....Traverse City
Way, Lewis R.....Traverse City
Weitz, Harry .....Traverse City
Wilcox, Paul .....Traverse City
Willoughby, Frances Lois.Traverse City
Zielke, I. H.....Traverse City
Zimmerman, J. G.....Traverse City

## Gratiot-Isabella-Clare Counties

Aldrich, Alfred L.....Ithaca
Barstow, D. K.....St. Louis
Barstow, William E.....St. Louis
Baskerville, C. M. .....Mt. Pleasant
Becker, Myron G.....Edmore
Budge, M. J.....Ithaca
Burch, L. J.....Mt. Pleasant
Burt, C. E.....Ithaca
Carney, T. J.....Alma
Dale, Edward C.....Shepherd
Davis, L. L.....Mt. Pleasant
Drake, Wilkie M.....Breckenridge
Du Bois, C. F.....Alma
Graham, B. J. .....Alma
Hall, B. C.....Pompeii
Hammerberg, Kuno .....Clare
Harrigan, W. L.....Mt. Pleasant
Hersee, Wm. E.....Mt. Pleasant
Hobbs, A. D.....St. Louis
Howe, Leslie A. .....Breckenridge
Howell, Don M.....Bay City
Johnson, P. R.....Mt. Pleasant
Kilborn, H. F.....Ithaca
McArthur, Stewart C.....Clare
Miller, S. W.....Alma
Oldham, E. S.....Breckenridge
Putzig, Louis M.....Blanchard
Rondot, E. F.....Lake
Rottschafer, J. L. .....Alma
Sanford, B. J.....Clare
Sarven, James D.....Middleton
Silvert, P. P. .....Vestaburg
Slattery, F. G.....Clare
Strange, Russell H.....Mt. Pleasant
Town, F. R. .....Mt. Pleasant
Waggoner, R. L.....St. Louis
Wilcox, R. A.....Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....Alma
Wood, Cornelius B.....Clare

## Hillsdale County

Alleger, W. E.....Pittsford
Bower, Charles T.....Hillsdale
Clobridge, C. E.....Allen
Day, Luther W.....Jonesville
Davis, L. A. .....Montgomery
Fisk, Fred B.....Jonesville
Gray, J. P. .....Hillsdale
Green, B. F.....Hillsdale
Hanke, George R.....Ransom
Hodge, C. L.....Reading
Hughes, Henry F.....Hillsdale
*Johnson, C. E.....Camp Grant, Ill.
*Kinzel, R. W.....Address Unknown
Kline, Fred D.....Litchfield
MacNeal, J. A. .....Hillsdale
Martindale, E. A.....Hillsdale
Mattson, H. F.....Hillsdale
Miller, Harry C.....Hillsdale
Poppen, C. J.....Reading
Sandor, A. A. .....Hillsdale
Sawyer, Walter .....Jonesville
Sterling, John S.....Jerome
Strom, A. W.....Hillsdale

## Houghton-Baraga-Keweenaw Counties

Abrams, James C.....Calumet
*Acocks, J. R...Selfridge Field, Mich.
*Aldrich, Leonard....Indianapolis, Ind.
Bourland, Philip D.....Calumet
Brewington, George F.....Mohawk
Coffin, Leslie E.....Painesdale
Cooper, C. A.....Hancock
Gregg, W. T. S.....Calumet
Hillmer, R. E.....Beacon Hill
Janis, A. J.....Hancock
*Kadin, Maurice .....Rockford, Ill.
King, William T.....Ahmeek
Kirton, Joseph R. W.....Calumet
LaBine, Alfred .....Houghton
Levin, Simon .....Houghton
MacQueen, Donald K.....Laurium
Manthei, W. A.....Lake Linden
Marshall, Frank F.....L'Anse
Pleune, R. E.....Houghton
Quick, James B.....Laurium
Roche, A. C.....Calumet
Roche, Andrew M.....Calumet
Sarvela, H. L. .....Hancock
Scott, William P.....Houghton
Sloan, Paul S. .....Houghton
Stern, Isadore D.....Houghton
Stewart, G. C.....Hancock
*Stewart, Marshall..Washington, D. C.
Ware, H. M.....Nahma

## Huron County

Gettel, Roy R. .....Kinde
Henderson, J. Bates.....Sebewaing
Herrington, Charles I. .....Bad Axe
Herrington, Willet J. .....Bad Axe
Holdship, Wm. B. .....Ubly
Monroe, Duncan J. .....Elkton
Morden, Charles B. .....Bad Axe
Oakes, C. W. .....Harbor Beach
Ritsema, John .....Sebewaing
Scheurer, C. .....Pigeon
Thumme, Harrison F. .....Sebewaing

## Ingham County

Albers, J. H.....Boston, Mass.
Albert, Wilford D.....Leslie
Barnum, S. V.....Lansing
Barrett, C. D.....Mason
Bartholomew, Henry S...Harbor Beach
Bauer, Theodore I.....Lansing
Behen, William C.....Lansing
Bellinger, E. G.....Lansing
Black, Charles E.....Lansing
Block, Bernita .....Lansing
Bradford, C. W.....Lansing
Breakey, Robert S.....Lansing
Brubaker, E. .....Lansing
Brucker, Karl B.....Lansing
Bruegel, Oscar H.....East Lansing
Burhans, Robert .....Lansing
Cameron, W. J.....Lansing
Carr, Earl I.....Lansing
Christian, L. G.....Lansing
Clark, William E.....Mason
Clinton, George .....Mason
Cook, R. J.....Lansing
Cope, H. E. .....Lansing
Corneliuson, Goldie .....Lansing
Corsaut, J. C.....Mason
Cross, Frank S. .....Lansing
Darling, L. H.....Lansing
Dart, Dorothy.....Lansing
Davenport, C. S.....Lansing
Dean, Carleton .....Lansing
DeLay, C. P.....Webberville
DeVries, C. F.....Lansing
Doyle, Charles R.....Lansing
Doyle, C. P.....Lansing
Drolett, Fred J.....Lansing
Drolett, Lawrence .....Lansing
Dunn, F. C.....Lansing
Dunn, F. M.....Lansing
Ellis, Bertha W.....Lansing
Ellis, C. W.....Lansing
Finch, Russell L.....Lansing
Fisher, D. W.....Lansing

Folkers, Leonard M. ....East Lansing
Fosget, Wilbur W.....Lansing
Foust, E. H.....Lansing
French, Horace L.....Lansing
Galbraith, Dugald A.....Lansing
Gardner, C. B.....Lansing
*Gibson, Thomas E.....
.....Selfridge Field, Mich.
Goldner, R. E.....Lansing
Gunderson, G. O.....Lansing
Hagele, Marie A. .....Lansing
Harris, Dean W.....Lansing
Harrold, J. F.....Lansing
Hart, L. C.....Lansing
Haynes, H. B.....Lansing
Haze, Harry A.....Lansing
Heckert, Frank B.....Lansing
Heckert, J. K.....Lansing
Hendren, Owen .....Williamston
Henry, L. L.....Lansing
Hermes, Ed. J.....Lansing
Himmelberger, R. J.....Lansing
Hodges, Kenneth P.....Lansing
Holland, Charles F.....East Lansing
Huggett, Clare C.....Lansing
Huntley, Fred M.....Lansing
Hurth, M. S.....Lansing
Johnson, K. H.....Lansing
Jones, Francis A.....Lansing
Jones, Francis, Jr.....Lansing
Kalmbach, R. E.....Lansing
Keim, C. D.....Lansing
Kelly, Wm. H. .....Lansing
Kent, Edith Hall.....Lansing
Kent, Herbert K.....Lansing
Kraft, L. C.....Leslie
Kramer, S. D.....Lansing
Larrabee, E. E.....Williamston

LeDuc, Don M. .....Lansing
Loree, Maurice C.....Lansing
Lucas, T. A.....Lansing
Ludlum, L. C.....Lansing
Martin, Wayne O.....Lansing
McConnell, E. G.....Lansing
McCorvie, C. Ray.....East Lansing
McCoy, Earl M.....Grand Ledge
McCrumb, R. R.....Lansing
McElmurry, N. K.....Perry
McGillicuddy, Oliver B.....Lansing
McGillicuddy, R. J.....Lansing
McIntyre, J. E.....Lansing
McNamara, William E.....Lansing
McPherson, E. G.....Mt. Clemens
Meade, Wm. H.....East Lansing
Mercer, Walter E.....East Lansing
Meyer, Hugh R.....Lansing
Miller, H. A.....Lansing
Mitchell, A .B.....Lansing
Morrow, R. J.....Lansing
Niles, B. D.....Lansing
Ochsner, P. J.....Lansing
O'Sullivan, Gertrude .....Mason
Phillips, R. H.....Lansing
Pinkham, R. A.....Lansing
Ponton, J. .....Mason
Potter, Earl C.....Lansing
Prall, H. J.....Lansing
Randall, O. M.....Lansing
Richards, F. D.....DeWitt
Ripka-Hautau, Emily.....Lansing
Roberts, D. W.....Okemos
Roberts, Russell .....Lansing
Robson, Edmund J.....Lansing
Rozan, J. S.....Lansing
Rozan, M. M.....Lansing
Russell, Claude V.....Lansing

Sander, John F.....Lansing
Sanford, Thomas M.....Lansing
Schnute, Louise F.....East Lansing
Seger, Fred L.....Lansing
Shaw, Milton .....Lansing
Sherman, George A.....Lansing
Sichler, Harper G. .....Lansing
Silverman, Irving E. .....Lansing
Smith, Anthony V.....Mason
Smith, H. M.....Lansing
Smith, Lillian R.....Lansing
Snell, D. M.....Lansing
Snyder, Le Moyne.....Lansing
Spencer, Perry .....Lansing
Steiner, A. A.....Lansing
Stiles, Frank .....Lansing
Strauss, P. C.....Lansing
Stringer, C. J.....Lansing
Swartz, Frederick C.....Lansing
Tamblyn, F. W.....Lansing
Thiehoff, E. V.....Lansing
*Toothaker, Kenneth..Great Lakes, Ill.
Towne, Lawrence C.....Lansing
Troost, F. L.....Holt
Vander Slice, E. R.....Lansing
*Vander Zalm, T. P.....
.....Camp Hulin, Texas
Wadley, R. .....Lansing
Warford, J. T.....Lansing
Webb, Roy O.....Okemos
Weinburgh, H. B.....Lansing
Welch, William H.....Lansing
*Wellman, John M. .....Atlanta, Ga.
Wetzel, John O.....Lansing
Wheeler, Warren E.....Detroit
Wiley, Harold W.....Lansing
Willson, Howard S.....Lansing
Wilson, Harry A.....Lansing

## Ionia-Montcalm Counties

Bird, William L.....Greenville
Botting, A. J.....Portland
Bower, A. J.....Greenville
Bracey, L. E.....Sheridan
Braley, Frank.....Saranac
Bunce, E. P.....Trufant
Dunkin, Lloyd S.....Greenville
Ferguson, F. H.....Carson City
Fleming, J. C.....Pewamo
Fox, Harold M.....Portland
Fuller, Rudolphus W.....Crystal
Geib, O. P.....Carson City
Hansen, Carl M.....Stanton
Hansen, M. M.....Greenville

Haskell, Robert H.....Northville
Hoffs, M. A.....Lake Odessa
Hollard, A. E.....Belding
Imus, H. L.....Ionia
Johns, Joseph J.....Ionia
Kelsey, L. E.....Lakeview
Kling, V. F.....Ionia
Lilly, Isaac S.....Stanton
Lintner, Roy C.....Ionia
Marsh, F. M.....Ionia
Marston, L. L.....Lakeview
McCann, John J.....Ionia
Mintz, Morris J.....Greenville

Norris, William W.....Portland
Peabody, C. H.....Lake Odessa
Pankhurst, C. T.....Ionia,
Phelps, Everett L.....Clarksville
Robertson, P. C.....Ionia
Seidel, Karl E.....Ionia
Slagh, Milton E. .....Saranac
Socha, Edmund S. .....Ionia
Swift, E. R.....Lakeview
VanDuzen, V. L.....Belding
VanLoo, J. A.....Belding
Weaver, Harry B. .....Greenville
Whitten, R. R.....Ionia
Willits, C. O.....Saranac

## Jackson County

Ahronheim, J. H.....Jackson
Alter, R. H.....Jackson
Appel, S. .....Jackson
Baker, G. M.....Parma
Balconi, Henry .....Jackson
*Bartholic, F. W..Camp Forrest, Tenn.
Beckwith, S. A.....Stockbridge
Brown, H. A.....Jackson
Bullen, G. R.....Jackson
Chabut, H. M.....Jackson
Chivers, R. W.....Jackson
Clarke, C. S.....Jackson
Cochrane, Wayne A.....Jackson
Cooley, Randall M.....Jackson
Corley, C. .....Jackson
Corley, Ennis .....Jackson
Cox, Ferdinand .....Jackson
*Crowley, Edward D.....
.....Pearl Harbor, T. H.
Culver, Guy D.....Stockbridge
DeMay, C. E.....Jackson
Dengler, C. R.....Jackson
Edmonds, J. M.....Horton
Enders, W. H. .....Jackson
Finton, Walter L.....Jackson
Finton, W. R.....Jackson
Foust, W. L.....Grass Lake
Gibson, F. J.....Jackson
Glover, H. G.....Jackson
Greenbaum, Harry .....Jackson

Hackett, T. E.....Jackson
Hanft, Cyril F.....Springport
Hanna, R. J.....Jackson
Hardie, G. C.....Jackson
Harris, Lester J. .....Jackson
Hicks, Glenn C.....Jackson
Holst, John B. .....Jackson
Huntley, W. B.....Jackson
Hurley, H. L.....Jackson
Keefer, A. H.....Concord
Kudner, Don F.....Jackson
Lake, William H.....Jackson
Lathrop, William W.....Jackson
*LaVictoire, I. N.....Cavite, P. I.
Leahy, E. O.....Jackson
Lenz, C. R.....Jackson
Leonard, Clyde A.....Jackson
*Ludwick, J. E.....New Orleans
McGarvey, W. E.....Jackson
McLaughlin, M. J.....Jackson
Meads, J. B.....Jackson
Miller, J. L.....Jackson
Munro, James E.....Jackson
Murphy, B. M.....Jackson
Newton, R. E.....Jackson
Nichols, R. H.....Grand Rapids
O'Meara, James J.....Jackson
Otis, Grant L.....Jackson
Payne, Andrew K.....Jackson
Porter, H. W.....Jackson

Pray, Frank F.....Jackson
Pray, George R.....Jackson
Ransom, F. G.....Jackson
Riley, Philip.....Jackson
Roberts, Arthur J.....Jackson
Schepeler, Courtland W.....Brooklyn
Scheurer, Peter Arthur....Manchester
Schmidt, T. E.....Jackson
Scott, John.....Jackson
Seybold, E. G.....Jackson
Shaeffer, A. M.....Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W.....Jackson
Southwick, W. A.....Springport
Speck, John W.....Jackson
Stewart, L. L.....Jackson
Sugar, Samuel.....Jackson
Susskind, M. V.....Jackson
Tate, Cecil E. .....Jackson
Thayer, E. A.....Jackson
Thalner, L. F.....Jackson
Townsend, J. W. ...Vandercook Lake
Tuthill, F. S.....Concord
Van Schoick, J. D.....Hanover
Van Schoick, Frank.....Jackson
Vivirski, Edward E.....Jackson
Wertenberger, M. D.....Jackson
Whölihan, John W...Michigan Center
Wickham, W. A.....Jackson
Wilson, N. D.....Jackson
Woodward, G. D.....Jackson

## Kalamazoo County

Aach, Hugo.....Kalamazoo
Adams, R. U.....Kalamazoo
Alexander, C. A.....Kalamazoo
Andrews, Sherman.....Kalamazoo
Armstrong, Robert J.....Kalamazoo
Banner, Lawrence R.....Kalamazoo
Barnebee, J. Hosea .....Kalamazoo

Barnebee, J. W.....Kalamazoo
Barrett, F. Elizabeth.....Kalamazoo
Behan, Gerald W.....Galesburg
Bennett, Charles L.....Kalamazoo
*Bennett, Keith .....Fort Custer
Berry, J. F.....Kalamazoo
Bodmer, H. C.....Kalamazoo

Borgman, Wallace.....Kalamazoo
Boys, C. E.....Kalamazoo
Brooks, Ervin D.....Kalamazoo
Brown, I. W.....Kalamazoo
Burns, J. T.....Kalamazoo
Caldwell, George H.....Kalamazoo
Cobb, Horace R.....Kalamazoo

Cook, R. G. ..... Kalamazoo
*Crane, W. B. ..... Fort Custer
Crawford, Kenneth ..... Kalamazoo
Dahlstrom, Doris ..... Kalamazoo
Dean, Ray ..... Three Rivers
Den Bleyker, Walter ..... Kalamazoo
DeWitt, L. H. ..... Kalamazoo
Dowd, B. J. ..... Kalamazoo
Doyle, F. M. ..... Kalamazoo
Ertell, William Francis ..... Kalamazoo
Fast, R. B. ..... Kalamazoo
Fopeano, John V. ..... Kalamazoo
Fulkerson, C. B. ..... Kalamazoo
Fuller, R. T. ..... Kalamazoo
Fuller, Paul ..... Kalamazoo
Gerstner, Louis ..... Kalamazoo
Gilding, Joseph ..... Vicksburg
Glenn, Audrey ..... Kalamazoo
Grant, Frederick E. ..... Kalamazoo
*Gray, Arthur S. ..... Kalamazoo
Gregg, Sherman ..... Kalamazoo
Harter, Randolph S. ..... Schoolcratt
Heersma, H. S. ..... Kalamazoo
Hildreth, R. C. ..... Kalamazoo
Hobbs, Edward J. ..... Galesburg
Hodgman, Albert B. ..... Kalamazoo
Hoebeke, William G. ..... Kalamazoo
*Holder, Charles ..... Kalamazoo
Howard, W. H. ..... Galesburg
Hubbell, R. J. ..... Kalamazoo
Huyser, William C. ..... Kalamazoo
Ilgenfritz, F. M. ..... Kalamazoo
Irwin, William D. ..... Kalamazoo
Jackson, Howard C. ..... Kalamazoo
Jackson, John B. ..... Kalamazoo
Jennings, W. O. ..... Kalamazoo
Kavanaugh, William R. ..... Kalamazoo
Kenzie, W. N. ..... Battle Creek
Klerk, W. J. ..... Kalamazoo
Koestner, Paul ..... Kalamazoo
Kuhs, Milton L. ..... Kalamazoo
Lambert, R. H. ..... Kalamazoo
Lang, W. W. ..... Kalamazoo
Lavender, Howard ..... Kalamazoo
Light, Richard Upjohn ..... Kalamazoo
Light, S. Rudolph ..... Kalamazoo
Littig, John ..... Kalamazoo
MacGregor, J. R. ..... Kalamazoo
Malone, James G. ..... Kalamazoo
Marshall, Don ..... Kalamazoo
McCarthy, J. S. ..... Kalamazoo
*McIntyre, Charles H. ..... Kalamazoo
Moe, Carl Rex ..... Kalamazoo
Morter, Roy A. ..... Kalamazoo
*Nell, Edward R. .....
..... Rizal, Philippine Islands
Nibbelink, Benjamin ..... Kalamazoo
Nystrom, Ruth ..... Kalamazoo
Okun, M. H. ..... Kalamazoo
*Osborne, Charles E. .....
..... Fort Statsenburg, P. I.
Patmos, Martin ..... Kalamazoo
Peelen, J. W. ..... Kalamazoo
Peelen, Matthew ..... Kalamazoo
Perry, Clifton ..... Kalamazoo
Pratt, F. A. ..... Kalamazoo
Prentice, Hazel R. ..... Kalamazoo
Pullon, A. E. ..... Kalamazoo
Rasmussen, Leo ..... Vicksburg
Rigterink, G. H. ..... Kalamazoo
Rigterink, H. A. ..... Kalamazoo
Rockwell, Donald C. ..... Kalamazoo
Ryan, F. C. ..... Kalamazoo
Sage, E. D. ..... Kalamazoo
Scholten, D. J. ..... Kalamazoo
Scholten, William ..... Kalamazoo
Schrier, C. M. ..... Kalamazoo
Schrier, Paul ..... Kalamazoo
Schrier, Thomas ..... Comstock
Scott, William A. ..... Kalamazoo
Sears, H. A. ..... Kalamazoo
Shackleton, William E. ..... Kalamazoo
Shepard, Benjamin A. ..... Kalamazoo
Shook, R. W. ..... Kalamazoo
Simpson, B. W. ..... Kalamazoo
Snyder, Roscoe F. ..... Kalamazoo
Sofen, Morris B. ..... Kalamazoo
Southworth, M. N. ..... Schoolcraft
Stryker, Homer H. ..... Kalamazoo
Upjohn, E. Gifford ..... Kalamazoo
Upjohn, L. N. ..... Kalamazoo
Van Urk, Thomas ..... Kalamazoo
Ver Hage, Martin ..... Kalamazoo
Volderauer, John C. ..... Kalamazoo
Wagar, Carl ..... Kalamazoo
*Wagenaar, E. H. .....
..... Fort Benj. Harrison, Indiana
Walker, Burt D. ..... Kalamazoo
Weirich, Richard ..... Marcellus
Westcott, L. E. ..... Kalamazoo
Wilbur, E. P. ..... Kalamazoo
Youngs, A. S. ..... Kalamazoo
Youngs, C. A. ..... Kalamazoo

## Kent County

*Adams, F. A. ..... San Diego, Calif.
Aitken, George T. ..... Grand Rapids
Allen, R. V. ..... Grand Rapids
Andre, Harvey M. ..... Grand Rapids
Bachman, G. A. ..... Grand Rapids
Baert, George H. ..... Grand Rapids
Baker, Abel J. ..... Grand Rapids
Ballard, M. S. ..... Grand Rapids
Balyeat. Gordon W. ..... Grand Rapids
Batts, Martin ..... Grand Rapids
Beaton, James H. ..... Grand Rapids
Beeman, Carl B. ..... Grand Rapids
Beeman, C. E. ..... Grand Rapids
Beets, W. Clarence ..... Grand Rapids
Bell, Charles M. ..... Grand Rapids
Bettison, Wm. ..... Grand Rapids
Billings, Elton P. ..... Grand Rapids
Blackburn, Henry ..... Grand Rapids
Bloxson, Paul ..... Grand Rapids
Boelkins, Richard C. ..... Grand Rapids
Boet, F. A. ..... Grand Rapids
*Boet, John ..... Alexandria, La.
Bond, George Lewis ..... Grand Rapids
Bosch, L. C. ..... Grand Rapids
Brace, Fred ..... Grand Rapids
Brayman, C. W. ..... Cedar Springs
Brennecke, Frances E. .. Grand Rapids
Brink, Russel ..... Grand Rapids
Brook, Jacob D. ..... Grandville
Brotherhood, James ..... Grand Rapids
Buesing, O. R. ..... Grand Rapids
Buist, S. J. ..... Grand Rapids
Bull, Frank L. ..... Sparta
Burleson, John S. ..... Grand Rapids
Burling, Wesley ..... Grand Rapids
Butler, William J. ..... Grand Rapids
Byrd, Mary Lou ..... Grand Rapids
Campbell, Alexander McKenzie
..... Grand Rapids
Carpenter, Luther Clarendon
..... Grand Rapids
Chadwick, W. L. ..... Grand Rapids
Chamberlain, L. H. ..... Grand Rapids
Chandler, Donald ..... Grand Rapids
Claytor, R. W. ..... Grand Rapids
Collisi, H. S. ..... Grand Rapids
Colvin, W. G. ..... Grand Rapids
Corbus, Burton R. ..... Grand Rapids
Cosgrove, Wm. J. ..... Grand Rapids
Crane, Charles V. ..... Grand Rapids
Crane, Harold D. ..... Grand Rapids
Currier, F. P. ..... Grand Rapids
Damstra, H. J. ..... Grand Rapids
Davis, D. B. ..... Grand Rapids
Dean, Alfred W. ..... Grand Rapids
De Boer, Guy William ... Grand Rapids
Dell, E. E. ..... Sand Lake
DeMaagd, Gerald ..... Rockford
DeMol, Richard J. ..... Grand Rapids
Denham, R. H. ..... Grand Rapids
De Pree, Isla G. ..... Grand Rapids
De Pree, Joseph ..... Grand Rapids
DeVel, Leon ..... Grand Rapids
De Vries, Daniel ..... Grand Rapids
Dewar, M. M. ..... Grand Rapids
Dick, Mark W. ..... Grand Rapids
Dixon, Willis L. ..... Grand Rapids
Doran, Frank ..... Grand Rapids
Driscoll, Edward T. ..... Grand Rapids
Droste, James C. ..... Grand Rapids
DuBois, William J. ..... Grand Rapids
Eaton, Robert M. ..... Grand Rapids
Eggleston, H. ..... Grand Rapids
*Farber, Charles E. ..... Detroit
Faust, L. W. ..... Grand Rapids
Fellows, Kenneth E. ..... Grand Rapids
Ferguson, James ..... Grand Rapids
Ferguson, Lynn A. ..... Grand Rapids
Ferguson, Ward S. ..... Grand Rapids
Ferrand, L. ..... Rockford
Fitts, Ralph L. ..... Grand Rapids
*Flynn, J. Donald ..... Chicago, Ill.
Foshee, J. C. ..... Grand Rapids
*Frantz, C. R. ..... Alexandria, La.
*Freyling, Robert ... San Diego, Calif.
Gaikema, E. W. ..... Grand Rapids
Geenen, C. J. ..... Grand Rapids
Gibbs, F. F. ..... Grand Rapids
Gilbert, R. H. ..... Grand Rapids
Gillett, O. H. ..... Grand Rapids
Grant, Lee O. ..... Grand Rapids
Graybiel, George P. ..... Caledonia
Griffith, L. S. ..... Grand Rapids
Haeck, Wm. ..... Grand Rapids
Hagerman, D. B. ..... Grand Rapids
Hayes, L. W. ..... Howard City
Heetderks, Dewey R. ..... Grand Rapids
Henry, James, Jr. ..... Grand Rapids
Herrick, Ruth ..... Grand Rapids
Hill, A. Morgan ..... Grand Rapids
*Hilt, Lawrence M. .....
..... Mare Island, Calif.
Hodgen, J. T. ..... E. Grand Rapids
Holcomb, J. W. ..... Grand Rapids
Holdsworth, M. J. ..... Grand Rapids
Holkeboer, Henry D. .. Grand Rapids
Hollander, Stephen ..... Grand Rapids
Hoogerhyde, Jack ..... Grand Rapids
Houghton, G. D. ..... Caledonia
Hufford, A. R. ..... Grand Rapids
Hunderman, Edward ..... Grand Rapids
Hutchinson, Robert J. ..... Grand Rapids
Hyland, W. A. ..... Grand Rapids
Ingersoll, C. F. ..... Grand Rapids
Irwin, Thomas C. ..... Grand Rapids
Jameson, Fred M. ..... Grand Rapids
Jaracz, W. J. ..... Grand Rapids
Jarvis, Charles ..... Grand Rapids
*Kelly, Robert E. ..... Detroit
Kemmer, Thomas R. ..... Grand Rapids
Kendall, Eugene L. ..... Grand Rapids
*Klaus, C. D. ..... Chicago, Ill.
Kniskern, P. W. ..... Grand Rapids
Kooistra, Henry P. ..... Grand Rapids
Kremer, John ..... Grand Rapids
Kreulen, H. J. ..... Grand Rapids
Kriekard, P. J. ..... Grand Rapids
Krupp, C. G. ..... Grand Rapids
Laird, Robert G. ..... Grand Rapids
Lamb, George F. ..... Grand Rapids
Lanning, N. E. ..... Grand Rapids
Lanting, D. B. ..... Grand Rapids
*Lavan, John .... Brooklyn, New York
Lentini, Joseph R. ..... Grand Rapids
Le Roy, Simeon ..... Grand Rapids
Lieffers, Harry ..... Grand Rapids
Lyman, William D. ..... Grand Rapids
MacDonell, James A. ..... Lowell
*Marrin, M. M. ..... Fort Bliss, Texas
Marsh, J. P. ..... Grand Rapids
McDougall, Clarice ..... Grand Rapids
McKenna, J. L. ..... Grand Rapids
McKinlay, L. M. ..... Grand Rapids
McRae, John H. ..... Grand Rapids
Meengs, Jacob Earl ..... Grand Rapids
Mehney, Gayle H. ..... Grand Rapids
Miller, J. Duane ..... Grand Rapids
Miller, John J. ..... Marne
Mitchell, H. C. ..... Grand Rapids
Mitchell, W. B. ..... Grand Rapids
Moen, Cornetta G. ..... Grand Rapids
Moleski, Leo ..... Grand Rapids
*Moleski, Stanley L. .. Great Lakes, Ill.
Moll, Arthur M. ..... Grand Rapids
Mollman, Arthur ..... Grand Rapids
Moore, Vernor M. ..... Grand Rapids
Mouw, Richard ..... Grandville
Mulder, J. D. ..... Grand Rapids
Murphy, M. J. ..... Grand Rapids
Nelson, A. R. ..... Grand Rapids
Noordewier, Albert ..... Grand Rapids
Northrup, William ..... Grand Rapids
Oliver, W. W. ..... Grand Rapids
Osborne, Howard ..... Grand Rapids
Paalman, Russell J. ..... Grand Rapids
Patterson, P. Wilfred ..... Grand Rapids
Pedden, J. R., Jr. ..... Grand Rapids
Phillips, J. W. ..... Grand Rapids
Pyle, Henry J. ..... Grand Rapids
Ragsdale, L. V. ..... Grand Rapids
Ralph, L. Paul ..... Grand Rapids
Reed, Torrance ..... Grand Rapids
Reus, William F. ..... Jamestown
Rigterink, J. W. ..... Grand Rapids
Riley, G. L. ..... Grand Rapids
Roberts, Mortimer E. ..... Grand Rapids
Robinson, Harold C. ..... Grand Rapids
Rodgers, W. L. ..... Grand Rapids
Rogers, John R. ..... Grand Rapids
Roth, Emil M. ..... Grand Rapids
Schermerhorn, L. J. ..... Grand Rapids
Schnoor, E. W. ..... Grand Rapids
Schuitema, Donald ..... Grand Rapids
Sevensma, Elisha S. ..... Grand Rapids
Sevey, L. E. ..... Grand Rapids
*Shellman, Millard W. .. Chicago, Ill.
Shepard, B. H. ..... Lowell
Slemons, C. C. ..... Grand Rapids
Sluyter, J. S. ..... Grand Rapids
Smith, A. B. ..... Grand Rapids
Smith, Ferris N. ..... Grand Rapids
Smith, R. Earle ..... Grand Rapids
Snapp, Carl F. ..... Grand Rapids
Snyder, Clarence ..... Grand Rapids
Southwick, George H. ..... Grand Rapids
Steffensen, W. H. ..... Grand Rapids
Stonehouse, G. G. ..... Grand Rapids
Stover, Virgil E. ..... Grand Rapids
Stuart, Gerhardus J. ..... Grand Rapids

Sugg, Cullen E.....Grand Rapids
Sus Strong, Carl A.....Grand Rapids
Swenson, H. C.....Grand Rapids

Ten Have, J.....Grand Rapids
Tesseine, A. J.....Grand Rapids
Teusink, J. H.....Cedar Springs
Thompson, Archibald B..Grand Rapids
Thompson, Athol B.....Grand Rapids
Thompson, P. L.....Grand Rapids
Tidey, Marcus B.....Grand Rapids
Tiffany, Joseph C.....Grand Rapids
Torgerson, William R....Grand Rapids

Van Belois, Harvard J...Grand Rapids

Van Bree, R. S.....Grand Rapids
Vanden Berg, Henry J...Grand Rapids
VanDuine, H. J.....Byron Center
Van Noord, Gelmer A.....Cutlerville
Van Solkema, Andrew...Grand Rapids
Van Solkema, Arthur.....Grandville
Van Woerkom, Daniel...Grand Rapids
Veenboer, Wm.....Grand Rapids
Veldman, Harold E.....Grand Rapids
Venema, Jay R.....Grand Rapids
Vis, William R.....Grand Rapids
Vyn, J. D.....Grand Rapids

Warnshuis, Frederick C.....
.....Windsor, Ontario

Webb, Rowland.....Grand Rapids
Webster, G. W.....Grand Rapids
Wedgewood, L. G.....Grandville
Wells, Merrill.....Grand Rapids
Wenger, A. V.....Grand Rapids
Wenger, John N.....Coopersville
*Whalen, John M. ..San Diego, Calif.
Whinery, Joseph B.....Grand Rapids
Willits, P. W.....Grand Rapids
Wilson, Wm. E. .....Grand Rapids
Woodburne, A. R.....Grand Rapids
Wright, John M.....Grand Rapids
Wright, Thomas B.....Grand Rapids
Yegge, J. P.....Kent City

## Lapeer County

Best, Herbert M.....Lapeer
Bishop, G. Clare.....Almont
Burley, David H.....Almont
Chapin, Clarence D.....Columbiaville
Dorland, Clark .....Lapeer

Hanna, Frederick R.....Lapeer
Jackson, Carl C.....Imlay City
McBride, J. R.....Lapeer
McLeod, K. W. A.....Lapeer
Merz, Henry G.....Lapeer

O'Brien, Daniel J.....Lapeer
Smith, G. L.....Imlay City
Thomas, J. Orville.....North Branch
Tinker, F. A.....Lapeer
Zemmer, H. B.....Lapeer

## Lenawee County

Abraham, A. O.....Hudson

Blanchard, L. E.....Hudson
Bland, J. P.....Adrian
Blanden, Merwin R. .....Tecumseh

*Campbell, C. A. .....Detroit
Case, C. W.....Onsted
Claflin, G. M.....Adrian
Clark, A. D.....Adrian
*Claxton, W. T.....Fort Sill, Okla.
Colbath, W. E.....Adrian

Evans, E. E.....Adrian

Hall, G. C.....Adrian
Hammel, H. H.....Tecumseh

Hardy, P. B.....Tecumseh
Heffron, Howard H.....Adrian
Helzerman, Ralph F.....Tecumseh
Hewes, A. B.....Adrian
Hornsby, W. B.....Clinton
Howland, F. A.....Adrian
Iler, Harris D.....Clinton

Jewett, William E., Jr.....Adrian

Lamley, Arthur E.....Blissfield
Loveland, Horace H.....Tecumseh

MacKenzie, W. S.....Adrian
*Marsh, R. G. B. ....Alexandria, La.
McCue, F. J.....Hudson

McCue, F. J., Jr.....Hudson
*Miller, Perry L...Camp McCoy, Wis.
Morden, Esli T.....Adrian

Pasternacki, Arthur S. .....Adrian
Patmos, Bernard.....Adrian
Peters, W. L.....Morenci

Raabe, E. C.....Morenci
Rawson, A. P.....Addison
Rogers, J. D.....Adrian

Spalding, I. L.....Hudson
Stafford, Leo J.....Adrian

VanDusen, C. A.....Blissfield

Wood, A. C.....Adrian
Wynn, G. H.....Adrian

## Livingston County

Brigham, Jeannette .....Howell

Cameron, Duncan A.....Brighton

Duffy, Ray M.....Pinckney

Finch, E. D.....Howell
*Gamble, Shelby G...Fort Crook, Nebr.

Glenn, B. H.....Fowlerville

Hayner, R. A.....Howell
Hendren, J. J.....Fowlerville
Hill, Harold C.....Howell
Huntington, H. G.....Howell
Laboe, E.....Howell

Leslie, G. L.....Howell
Lojacono, S.....Howell
McDowell, Guy Marshall.....Howell
McGregor, Archie J.....Brighton
Sigler, Hollis L.....Howell
Stephens, D. C.....Howell

## Luce County

Berghorst, John .....Newberry
Bohn, Frank P.....Newberry
Campbell, Earl H.....Newberry
Cogger, Thomas W.....Newberry
Franklin, Sidney.....Newberry

Gibson, Robert E.....Newberry
Lance, Paul E.....Romeo
Perry, Henry E.....Newberry
Purmort, William R., Jr.....Newberry
Rehn, Adolph T. .....Newberry

Spinks, Robert Earl.....Newberry
*Surrell, M. A...Camp Blanding, Fla.
*Swanson, George .....Newberry
Toms, Charles B.....Newberry

## Macomb County

Allen, L. K.....Roseville

Banting, O. F.....Richmond
Barker, J. G.....Centerline
Berry, Henry G.....Mt. Clemens
Bower, A. B.....Armada

Caster, E. Wilbur.....Mt. Clemens
Croman, Joseph M., Jr...Mt. Clemens
Croman, Joseph M., Sr....Mt. Clemens
Curlett, James E.....Roseville

*Deurloo, Henry W.....
.....Camp Wallace, Texas
Dudzinski, Edmund J...New Baltimore
Earnhardt, J. M.....St. Clair Shores

Engels, J. A.....Richmond

Fluemer, Oswald .....Mt. Clemens
Hawley, R. E.....St. Clair Shores
Heine, A. W.....Mt. Clemens

Kane, William J.....Mt. Clemens

Lane, W. D.....Romeo
Lynch, Russell E.....Center Line

Moore, G. F.....Mt. Clemens
Reichman, Joseph J.....Mt. Clemens
Reitzel, R. H.....Mt. Clemens
Rivard, C. L.....St. Clair Shores
Roth, G. E.....Armada
Rothman, A. M.....East Detroit

Salot, R. F.....Mt. Clemens
Scher, Joseph N.....Mt. Clemens
Sibrans, W. A.....East Detroit
Siegfried, E. G.....New Haven
Smith, M. C.....Mt. Clemens
Stone, Elizabeth A. .....Romeo
Sturm, Fred A.....St. Clair Shores

Thompson, A. A.....Mt. Clemens

Ullrich, R. W.....Mt. Clemens

*Wellard, Henry G....Alexandria, La.
Wilde, M. M.....Warren
Wiley, Bruce .....Utica
Wiley, Herbert H.....Utica
Wolfson, Victor H.....Mt. Clemens

## Manistee County

Bryan, Kathryn M.....Manistee

Grant, C. L.....Manistee

Hansen, E. C.....Manistee
*Konopa, John F...Fort Custer, Mich.

Lewis, Lee A.....Manistee

MacMullen, Harlen .....Manistee

Miller, E. B.....Manistee

Norconk, Ward H.....Bear Lake

Oakes, Ellery A.....Manistee
Ogilvie, G. D.....Manistee
Quinn, Henry M.....Copemish
Ramsdell, Homer A.....Manistee
Whitley, Alec .....Bear Lake

## Marquette-Alger Counties

Bennett, Arthur K.....Marquette
Berry, Robert F.....Marquette
Bertucci, J. P.....Ishpeming
Blake, H. P.....Marquette
Casler, W. L.....Marquette
Cooperstock, M. .....Marquette
Corcoran, W. A.....Ishpeming
Drury, Charles P.....Marquette
Elzinga, E .R.....Marquette
Fennig. F. A.....Marquette
Hanelin, H. A.....Marquette

Harkin, J. C.....Marquette
Hartt, P. P. .....Ishpeming
Hornbogen, D. P.....Marquette
Janes, R. Grant.....Marquette
Keskey, George I.....Marquette
Lambert, W. C.....Marquette
LeGolvan, C. .....Marquette
McCann, Neal J.....Ishpeming
Mudge, W. A.....Negaunee
Nicholson, J. B.....Marquette
Picotte, Wilfrid S.....Ishpeming

Robbins, Nelson J.....Negaunee
*Schutz, W. J.....Address Unknown
Sicotte, Isaiah.....Michigamme
Swinton, A. L.....Marquette

Talso, Jacob .....Ishpeming

Vandeventer, Vivian .....Ishpeming
Van Riper, Paul.....Champion
Waldie, George M. .....Ishpeming
Wickstrom, George .....Munising
Witters, Josef E.....Gwinn

## Mason County

Blanchette, Victor J.....Scottville
Comodo, N. M.....Ludington
Goulet, L. J. .....Ludington
Hoffman, Howard.....Ludington
Hunt, I. L.....Scottville
Kirwin, E. J.....Ludington
Martin, W. S.....Ludington
Ostrander, R. A.....Ludington
Paukstis, Charles.....Ludington
Spencer, C. M.....Scottville

## Mecosta-Osceola-Lake Counties

Bruggema, Jacob .....Evart
Campbell, James B.....Big Rapids
Chess, Leo F.....Reed City
Franklin, Benjamin L.....Remus
Grieve, Glenn.....Big Rapids
Hall, Clifton.....Big Rapids
*Ivkovich, Paul ....Camp Croft, S. C.
Kilmer, Paul B.....Reed City
Klein, J. Paul .....Reed City
MacIntyre, Donald.....Big Rapids
Peck, Louis K.....Barryton
Phillips, R. W.....Remus
Treynor, Thomas P.....Big Rapids
White, J. A.....Morley
Yeo, Gordon H.....Big Rapids

## Medical Society of North Central Counties

## (Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw-Gladwin-Kalkaska Counties)

Beeby, R. J.....West Branch
Clippert, C. G.....Grayling
Coulter, Keith Douglas.....Gladwin
Crandell, C. H.....West Branch
Drescher, George A.....Lewiston
Egle, Joseph L.....Gaylord
Harris, Levi A.....Gaylord
Hendricks, Henning V.....Kalkaska
Jardine, Hugh M.....West Branch
Keyport, C. R.....Grayling
Lanting, Helen E. .....Gladwin
*Lanting, Roelof .....
.....Camp Livingston, La.
LaPorte, Lawrence A.....Gladwin
Martzowka, M. A.....Roscommon
McDowell, Douglas B.....West Branch
McKillop, G. L.....Gaylord
Palm, Geo. W.....Pruddenville
Peckham, Richard C.....Gaylord
Sargent, Leland E.....Kalkaska
Stealy, Stanley.....Grayling
Thompson, Sue H.....New York City

## Menominee County

Corkill, C. C.....Menominee
Dewane, F. J.....Menominee
Flanagan, Clarence B.....Menominee
*Heidenreich, John R.....
.....Camp Wallace, Texas
Jones, William S.....Menominee
Kaye, J. T.....Menominee
Kerwell, K. C.....Stephenson
Mason, Stephen C.....Menominee
Montgomery, Robert ....Hermansville
Peterson, A. R.....Daggett
Sawbridge, Edward .....Stephenson
Scully, John C.....Menominee
Sethney, Henry T.....Menominee
Sethney, Walter F.....Menominee
Towey, J. W.....Powers

## Midland County

Ballmer, Robert S.....Midland
Gay, Harold Howard.....Midland
Grewe, N. C.....Midland
High, C. V., Jr.....Midland
Linsenmann, Karl W.....Midland
MacCallum, Charles .....Midland
Maynard, W. A.....Coleman
Meisel, Edward H.....Midland
Pike, Melvin H.....Midland
Rice, Robert E.....Midland
Sachs, Ralph R.....Midland
Schirack, Ray.....Saginaw
Sherk, J. H.....Midland
Sjolander, Gust.....Midland
Towsley, W. D.....Midland
Von Haitinger, Kalmon S.....Midland

## Monroe County

Acker, William F.....Monroe
Ames, Florence .....Monroe
Balk, A. C. .....Monroe
Barker, Vincent L.....Monroe
Blakey, L. C.....Monroe
Bond, W. W.....Monroe
Cohen, H. Herbert.....Monroe
Denman, D. C.....Monroe
Dusseau, S. V.....Erie
Ewing, R. T.....Monroe
Flanders, J. P.....Monroe
Gelhaus, William J.....Monroe
Golinvaux, C. J.....Monroe
*Goodman, Louis..San Antonio, Texas
Heffernan, John F.....Carleton
Hensel, Hilda .....Monroe
Hunter, M. A.....Monroe
Johnson, A. Esther.....Monroe
Landon, Herbert W.....Monroe
Long. Edgar C.....Monroe
Long, Sara .....Monroe
McGeoch, R. W.....Monroe
McMillin, J. H.....Monroe
Meck, H. L.....Dundee
Morely, Louise.....Erie
Moriarty, Walter C.....Monroe
Parmelee, O. E.....Lambertville
Penzotti, Stanley .....Dundee
Pinkus, H. K.....Monroe
Reisig, A. H.....Monroe
Sanger, Emerson J. .....Monroe
Siffer, J. J.....Monroe
Smith, William A.....Petersburg
Stolpestad, C. T.....Monroe
Tomlinson, Ledyard.....New Port
Wagar, Spencer .....Rockwood
Williams, Robert J.....Monroe

## Muskegon County

Anderson, A. J.....Muskegon
August, R. V.....Muskegon Heights
Barnard, Helen .....Muskegon
Bartlett, F. H.....Muskegon
Beers, Charles .....Holton
Benedict, A. L.....Muskegon
Bloom, C. J.....Muskegon
Boyd, D. R.....Muskegon
Bradshaw, Park S.....Muskegon
Chapin, William S...Muskegon Heights
Closz, H. F.....Muskegon
Cohan, Sol G.....Muskegon
Colignon, C. M.....Muskegon
Collier, C. C.....Whitehall
D'Alcorn, Ernest .....Muskegon
*Dasler, A. F.....Great Lakes, Ill.
Derezinski, Clement F.....Muskegon
Diskin, Frank.....Muskegon
Douglas, Robert .....Muskegon
Durham, C. J.....Muskegon
Dykhuisen, Harold D.....Muskegon
Eckerman, C. T.....Muskegon
Fillingham, Enid .....Muskegon
Fleischman, C. B.....Muskegon
Fleishman, Norman.....Muskegon
Foss, Edward O.....Muskegon
Garber, F. W., Jr.....Muskegon
Garland, J. O.....Muskegon
Gillard, James .....Muskegon
Goltz, Martha H.....Montague
Griffith, Robert M. .....Muskegon
Hagen, Wm. A. .....Muskegon
Hannum, F. W.....Muskegon
Harrington, A. F.....Muskegon
Harrington, R. J.....Muskegon
Hartwell, S. W.....Muskegon
Heneveld, John.....Muskegon
Holly, Leland E.....Muskegon
Holmes, Roy H.....Muskegon
Jackson, S. A.....Muskegon
Kane, Thomas J.....Muskegon
Keilin, Marie .....Muskegon
Kerr, H. J.....Muskegon
Kniskern, E. L.....Muskegon
LaCore, O. M.....Muskegon Heights
Lange, E. W.....Muskegon
Lauretti, Emil.....Muskegon
Laurin, V. Samuel.....Muskegon
LeFevre, George L.....Muskegon
*LeFevre, Louis .....
.....Fort Sam Houston, Texas
LeFevre, William M.....Muskegon
Loder, Leonel Lewis.....Muskegon
Loomis, John L.....Muskegon
Loughery, H. B.....Muskegon
Mandeville, C. B.....Muskegon
Medema, Paul E.....Muskegon
Meengs, M. B.....Muskegon Heights
Miller, Philip L.....Muskegon
Morford, F. N.....Muskegon
Morse, Bertram W.....Whitehall
Mulligan, A. W.....Muskegon
Oden, Constantine L.....Muskegon
Olson, R. G.....Muskegon Heights
Pangerl, Carl .....Muskegon Heights
Petkus, Antoine.....Muskegon
Pettis, Emmett.....Muskegon
Powers, Lunette .....Muskegon
Price, Leonard.....Muskegon
Pyle, H. J.....Muskegon
Risk, R. A.....Muskegon
Risk, Robert D.....Muskegon
*Scholle, N. W.....Muskegon
Sears, Richard.....Muskegon
Spoor, A. A.....Muskegon
Stone, Maxwell E.....Muskegon
Swartout, W. C.....Muskegon
Teifer, Charles A.....Muskegon
Thieme, S. W.....Ravenna
Thornton, E. S.....Muskegon
Wilke, C. A.....Montague
Wilson, P. S.....Muskegon

## Newaygo County

Barnum, W. H.....Fremont
Deur, T. R.....Grant
Edwards, Albert .....Fremont
Geerlings, Lambert .....Fremont
Geerlings, Lewis J.....Fremont
Geerlings, Willis .....Fremont
*Gordon, B. F. .....Fort Custer
Moore, H. R.....Newaygo
Saxen, Raymond .....White Cloud
Stryker, O. D.....Fremont
Tompsett, Arthur C.....Hesperia

## Northern Michigan

### (Antrim-Charlevoix-Cheboygan-Emmet Counties)

Blum, Benjamin B.....Petoskey
Burns, Dean C.....Petoskey
Chapman, James.....Charlevoix
Chapman, Willis Earle.....Cheboygan
Conkle, Guy C.....Boyne City
Conti, Joseph.....Petoskey
Conway, William S.....Petoskey
Frank, Gilbert E.....Harbor Springs
Giffords, Mark .....Charlevoix
Harrington, H. M.....East Jordan
Hegener, A. J.....Petoskey
Larson, Walter E.....Levering
Lashmet, Floyd H.....Petoskey
Lilga, Harris V.....Petoskey
Litzenburger, A. F.....Boyne City
Mast, W. H.....Petoskey
Mayne, Frederick C.....Cheboygan
McCune, William Stanley....Petoskey
McMillan, Fraley .....Charlevoix
*Miller, Samuel.....Urbana, Ill.
Palmer, Russell .....St. James
Parks, W. H.....Petoskey
Reed, Wilbur F.....Cheboygan
Rodgers, John .....Bellaire
Saltonstall, Gilbert B.....Charlevoix
Slade, H. G.....Onaway
Stringham, J. R.....Cheboygan
Tiffany, A. C.....Mackinac City
Van Dellen, Jerrian.....Ellsworth

## Oakland County

Abbott, V. C.....Pontiac
AschenBrenner, Z. R.....Farmington
Baker, Frederick A.....Pontiac
Baker, Robert H.....Pontiac
Barker, Howard B.....Pontiac
Bauer, Ernest W.....Hazel Park
Beattie, W. G.....Ferndale
Beck, Otto O.....Birmingham
*Benning, C. H.....San Juan, P. R.
Berg, Richard H. .....Oxford
Borland, Alexander .....Pontiac
Boucher, R. E.....Royal Oak
Burke, Chauncey G.....Pontiac
Burt, F. J.....Holly
Butler, Samuel A.....Pontiac
Campbell, M. D.....Ferndale
Carr, Wm. H.....Holly
Christie, Edward D.....Pontiac
Christie, J. W.....Pontiac
Church, J. E.....Pontiac
Cobb, Leon F.....Pontiac
Cooper, Robert J.....Pontiac
Cottrell, Martha S.....Novi
Couchman, Boyd .....Royal Oak
Crissman, Harold C.....Ferndale
Cudney, Ethan B.....Pontiac
Dahlgren, Carl.....Keego Harbor
Darling, C. G., Jr.....Pontiac
Dobski, Edwin J. .....Pontiac
Ekelund, Clifford T.....Pontiac
Farnham, Lucius Augustine....Pontiac
*Faulconer, Albert.....Fort Custer
Ferris, Ralph G.....Brimingham
Fitzpatrick, Francis .....Pontiac
Flick, Earl J.....Royal Oak
Flick, John R.....Royal Oak
Foust, Earl W.....Hazel Park
Fox, John W.....Pontiac
Francis, Donald .....Pontiac
*Furlong, Harold A.....Lansing
Gaensbauer, Ferdinand .....Pontiac
Gariepy, Bernard F.....Royal Oak
Gatley, C. R.....Pontiac
Gatley, L. Warren.....Pontiac
Gehinger, Norman F. .....Pontiac
Geib, Ormond D.....Rochester
Gerls, Frank B.....Pontiac
Gill, Matthew J. .....Detroit
Gordon, J. H.....Birmingham
Grant, William A.....Milford
Green, William M.....Pontiac
Halsted, Lee H.....Farmington
Hammer, Carl W.....Oxford
Hammonds, E. E.....Birmingham
Harris, Landy E.....Pontiac
Harvey, Campbell .....Pontiac
Hassberger, J. B.....Birmingham
Hathaway, Clarence L....Lake Orion
Hathaway, William .....Rochester
Henry, Colonel R.....Ferndale
Hensley, C. B. .....Lake Orion
Howlett, E. V.....Pontiac
*Hoyt, Donald F.....Pontiac
*Hubert, John R.....Seward, Alaska
Huffman, M. R.....Milford
Hume, T. W. K.....Auburn Heights
Hurst, Daniel D.....Pleasant Ridge
Hutchinson, Wm. G.....Pontiac
Jones, Morrell M.....Drayton Plains
Kemp, Felix J.....Pontiac
Kemp, W. Lloyd.....Birmingham
Kimball, A. S.....Pontiac
Kirkup, Norman N.....Hazel Park
Lambie, John S.....Pontiac
Lambert, Alvin Gerald.....Ferndale
Larson, B. T.....Pontiac
Lass, E. H. .....Oxford
Lawler, C. F. .....Birmingham
Lewis, Sol M.....Ferndale
Little, J. W. .....Pontiac
Lockwood, C. E.....Holly
MacInnis, Francis .....Pontiac
MacKenzie, O. R.....Walled Lake
Margrave, Edmund D.....Royal Oak
Markley, John Martin.....Pontiac
Mason, Robert J.....Birmingham
McConkie, J. P.....Birmingham
McNeill, H. H.....Pontiac
Meinke, Herman A.....Hazel Park
Mercer, Frank A.....Pontiac
Mitchell, B. M.....Pontiac
Monroe, J. D. .....Pontiac
Mooney, C. A.....Ferndale
Moosman, D. A.....Pontiac
Neafie, Charles A.....Pontiac
Needle, Francis .....Pontiac
Newcomb, Arnold B.....Berkley
Norup, John .....Berkley
Nosanchuk, Joseph .....Pontiac
Ohlmacher, A. P.....Royal Oak
*Olsen, Richard E.....
.....San Francisco, Calif.
Osgood, S. W.....Clawson
Pauli, Theodore H.....Pontiac
Pelletier, Charles J.....Hazel Park
Pool, H. H.....Pontiac
*Porritt, Ross J...Camp Forrest, Tenn.
Prevette, Isaac C.....Pontiac
Raynale, George P.....Birmingham
Reid, Fred T.....Clawson
Rennell, E. J.....Pontiac
Riker, Aaron D.....Pontiac
Roehm, Harold R.....Birmingham
Rowley, Laurie G.....Drayton Plains
Rupp, Jacob R.....Davisburg
St. John, Harold A.....Pontiac
Schlecte, Carl .....Rochester
Schlecte, Eve M.....Rochester
Schoenfeld, John B.....Birmingham
Schuneman, Howard .....Ferndale
Seaborn, A. J.....Royal Oak
Sibley, H. A.....Pontiac
Simpson, E. K.....Pontiac
Smith, Carleton A.....Pontiac
*Smith, Donald S.....Pontiac
Smith, Ellen .....Pontiac
Spears, M. L.....Pontiac
Spencer, Lloyd H.....Royal Oak
Spoehr, Eugene L.....Ferndale
Spohn, Earl W.....Royal Oak
Stahl, Harold F.....Oxford
Starker, Clarence T.....Pontiac
Steinberg, Norman.....Royal Oak
Stolpman, A. K.....Birmingham
Sutton, Palmer E.....Royal Oak
Terry, Stuart .....Pontiac
Tuck, Raymond G.....Pontiac
Uloth, Milton J.....Ortonville
Vatz, Jack A. .....Pontiac
*Wagley, P. V.....Milwaukee, Wis.
Wagner, Ruth E.....Royal Oak
Watson, Thomas Y. .....Birmingham
*Wentz, A. E.....Bloomfield Hills
Wilbur, Cornelia .....Pontiac
Yoh, Harry B.....Clarkston
Young, Arthur R.....Pontiac

## Oceana County

Day, Clinton.....Hart
Flint, Charles.....Hart
Hayton, A. R.....Shelby
Heard, William.....Pentwater
Heysett, Norman W....Naperville, Ill.
Jensen, Viggo .....Shelby
Lemke, Walter M.....Shelby
Munger, L. P.....Hart
Nicholson, John H.....Hart
Reetz, Fred A.....Shelby
Robinson, W. Gordon.....Hart
Wood, Merle G.....Hart

## Ontonagon County

Bender, Jesse L.....Mass
Evans, Edwin J.....Ontonagon
Hogue, H. B.....Ewen
Pinkerton, W. J.....Ontonagon
*Rubinfeld, S. H.....Coleman, Texas
Shale, R. J.....Ontonagon
Strong, W. F.....Ontonagon
Whiteshield, C. F.....Trout Creek

## Ottawa County

*Bloemendaal, D. C.....Fort Custer
Bloemendal, W. B.....Grand Haven
Boone, Cornelius E.....Zeeland
Cook, Carl S.....Holland
De Witt, S. L.....Grand Haven
*Harms, H. P.....San Diego, Calif.
Irvin, Harry C.....Holland
Kemme, Gerrit.....Zeeland
Kools, William Clarence ....Holland
Leenhouts, Abraham.....Holland
Long, C. E.....Grand Haven
Nichols, Rudolph H.....Holland
Nykamp, Russell.....Zeeland
Presley, William J.....Grand Haven
Tappan, W. M.....Holland
Ten Have, Ralph.....Grand Haven
Ver Duin, J.....Grand Haven
Van Der Berg, E.....Holland
Van der Velde, O.....Holland
Wells, Kenneth.....Spring Lake
Westrate, William.....Holland
Winter, John K.....Holland
Winter, William G.....Holland

## Saginaw County

Ackerman, Gerald L.....Saginaw
Anderson, Wm. K.....Saginaw
Bagley, U. S.....Saginaw
Bagshaw, David E.....Saginaw
Berberovich, T. F.....Saginaw
Bishop, H. M.....Saginaw
Brender, Fred P. .....Frankenmuth
Brock, W. H.....Saginaw
Bruton, Martin F.....Saginaw
Busch, Frank J.....Saginaw
Butler, M. G.....Saginaw
Button, A. C.....Saginaw
Cady, F. J.....Saginaw
Calomeni, Anthony D.....Lansing
Cameron, Allen K.....Saginaw
Campbell, L. A.....Saginaw
Chisena, Peter R.....Bridgeport
Clark, Wilbert B.....Saginaw
Claytor, Archer A.....Saginaw
Cortopassi, Andre.....Saginaw
*Cortopassi, V. E.....
.....Camp Yulick, Panama
Cory, C. W.....Saginaw
Curts, James.....Saginaw
Durman, Donald C.....Saginaw
Ely, C. W.....Saginaw
Ernst, Arthur R.....Saginaw
Eymer, Esther.....Saginaw
Fleschner, Thomas E.....Birch Run
Gage, David P.....Saginaw
Galsterer, Edwin C.....Saginaw
Gerber, Herbert .....Saginaw
Gomon, Louis D.....Saginaw
Grigg, Arthur.....Saginaw
Grigg, Arthur P.....Saginaw
Hand, Eugene .....Saginaw
Harvie, L. C.....Saginaw
Helmkamp, Herbert C.....Saginaw
Hester, E. G.....Saginaw
Hill, Victor L.....Saginaw
Hohn, Fred J.....Saginaw
*Immerman, Harold M.....Far East
Jaenichen, R.....Saginaw
James, John W.....Saginaw
Jiroch, R. S.....Saginaw
Jordan, Leo A.....Saginaw
Keller, S. S.....Saginaw
Kemp, J. M.....Saginaw
Kempton, R. M.....Saginaw
Kerr. Wm. .....Saginaw
Kirchgeorg, Clemens G...Frankenmuth
Kleekamp, H. G.....Saginaw
Knott, Harriet A.....Saginaw
Kowals, F. V.....Saginaw
Ling, Ernest M.....Hemlock
Lohr, O. W.....Saginaw
Longstreet, Martha L.....Saginaw
Luger, F. E.....Saginaw
*Lurie, Robert ....Address Unknown
MacMeekin, James Ware.....Saginaw
Markey, Joseph.....Saginaw
Martzowka, William P.....Saginaw
Maurer, John A.....Saginaw
McClinton, N. F.....Saginaw
McGregor, R.....Saginaw
McKinney, Alex. R.....Saginaw
McLandress, Joshua A.....Saginaw
Meyer, Henry J.....Saginaw
Moon, A. R.....Saginaw
*Mudd, Richard D.....
.....Duncan Field, Texas
Murphy, Albert P.....Saginaw
*Murray, Charles R.....Saginaw
Nicholas, Mildred.....Saginaw
Novy, F. O.....Saginaw
O'Reilly, William J.....Saginaw
Ostrander, Frank W.....Freeland
Phillips, Homer A.....Saginaw
Pietz, Frederick.....Saginaw
Pillsbury, Edward A.....Frankenmuth
Poole, Frank A.....Saginaw
Potvin, Clifford D.....Saginaw
Richards, Ned R.....Saginaw
Richter, Harry J.....Saginaw
Ryan, M. D.....Saginaw
Ryan, R. S. .....Saginaw
Sample, J. T.....Saginaw
Sargent, D. V. .....Saginaw
Schaiberger, Elmer.....Saginaw
Schneider, A.....Saginaw
*Sheldon, S. A.....New York City
Skowronski, Casimer A. .....Saginaw
*Slack, W. K.....Saginaw
Stander, A. C.....Saginaw
Stewart, George .....Saginaw
Stiller, A. F. .....Saginaw
Stolz, Harold F.....Saginaw
Thomas, Dale.....Saginaw
Tiedke, G. E.....Saginaw
Toshach, C. E.....Saginaw
*Wallace, Herbert C. .....
..... Alexandria, Louisiana
Wilson, H. Roy.....Saginaw
Yntema, S.....Saginaw

## Sanilac County

Blanchard, E. W.....Deckerville
Cochran, Lewis E. .....Peck
Ellis, N. J.....Croswell
Gift, W. A. .....Marlette
Gordon, Vida H.....Sandusky
Hart, R. K. .....Croswell
Koch, D. .....Brown City
Learmont, H. H. .....Croswell
McGunegle, K. T. .....Sandusky
Norgaard, Hal V. .....Marlette
Seager, M. Cole .....Brown City
Sobin, D. J.....Carsonville
Tweedie, G. Evans .....Sandusky
Tweedie, S. Martin .....Sandusky
Webster, John C. .....Marlette

## Shiawassee County

Alexander, Reuben G.....Laingsburg
Arnold, Alfred L., Jr.....Owosso
Arnold, A. L., Sr.....Owosso
Backe, John C. .....Corunna
Brandel, J. M.....Owosso
*Brown, Richard J.....
.....Camp Douglas, Ga.
Buzzard, Walter D.....Chesaning
Camper, T. E. .....Corunna
Carney, Edward J.....Durand
Cramer, George L. G.....Owosso
Crane, C. A. .....Corunna
Fillinger, W. B.....Ovid
Greene, I. W.....Owosso
Hoshal, Vern L.....Durand
Hume, Arthur M.....Owosso
Hume, Harold A.....Owosso
Janci, Julius.....Owosso
Kaufman, H. J.....Owosso
Linden, V. E.....Durand
*McKnight, E. R.....Camp Grant, Ill.
Parker, W. T. .....Owosso
Pochert, R. C.....Owosso
Richards, C. J.....Durand
Shepherd, W. F.....Owosso
Slagh, E. M.....Elsie
Soule, Glenn T.....Henderson
Watts, Fred A.....Owosso
Weinkauf, W. F.....Corunna
Weston, C. L.....Owosso
Wilcox, Anna L.....Owosso
Wilcox, C. M.....Owosso

## St. Clair County

Armsbury, A. B.....Marine City
Atkinson, J. M.....Port Huron
Attridge, J. A.....Port Huron
Banting, K. C. .....Port Huron
Battley, J. C. Sinclair....Port Huron
Beck, Frank K. .....Port Huron
Biggar, R. J.....Port Huron
Borden, C. L.....Yale
Boughner, W. H.....Algonac
Bovee, M. E.....Port Huron
Brush, Howard O.....Port Huron
Burke, Ralph M.....Port Huron
Burley, Jacob H.....Port Huron
Callery, A. L.....Port Huron
Campbell, R. H.....St. Clair
Carey, Lewis M. .....Detroit
Carney, F. V.....St. Clair
Clyne, B. C.....Yale
Cooper, T. H.....Port Huron
DeGurse, T. E.....Marine City
Derck, W. P.....Marysville
Falk, Edwin Carl.....Algonac
Fraser, Robert C.....Port Huron
Hall, W. E. B.....Port Huron

Heavenrich, Theodore F...Port Huron
Holcomb, R. J.....Marine City
Kesl, George Matthew....Port Huron
Le Galley, K. B.....Port Huron
Licker, R. R.....Port Huron
Ludwig, F. E.....Port Huron
McCue, Christopher.....Goodells
MacPherson, C. A.....St. Clair
Martin, C. S.....Port Huron
McColl, D. J.....Port Huron
McColl, Neil J.....Port Huron
Meredith, E. W.....Port Huron
Patterson, D. Webster....Port Huron
Pollock, Donald A.....Yale
Reynolds, Annie E.....Port Huron
Ryerson, W. W.....Port Huron
Searles, Karl F. .....Capac
Schaefer, W. A.....Port Huron
Sites, E. C.....Port Huron
Thomas, C. F.....Port Huron
Treadgold, Douglas.....Port Huron
Vroman, M. E.....Port Huron
Waltz, J. F.....Capac
Ware, John R.....Port Huron
Wass, Henry C.....St. Clair
Waters, George.....Port Huron
Wellman, Joseph E.....Port Huron
Wight, William G.....Yale
Witter, Gordon L.....Port Huron
Zemmer, A. L.....Port Huron

## St. Joseph County

Berg, Lawrence A.....Centerville
Brunson, A. E.....Colon
*Buell, Martin .....Bethesda, Md.
Dodrill, F. D. .....Three Rivers
Fiegel, S. A.....Sturgis
Fortner, R. J.....Three Rivers
Hoekman, Aben.....Constantine
Holm, Arvid G.....Three Rivers
Kane, David M.....Sturgis
Miller, C. G.....Sturgis
Parrish, Marion F.....Sturgis
Raisch, Fred J.....White Pigeon
Reed, Fred R.....Three Rivers
*Rice, John W.....Chicago, Ill.
Shaw, G. D.....Mendon
Sheldon, J. P.....Sturgis
Slote, L. K.....Constantine
Springer, R. A.....Centerville
Sweetland, G. J.....Constantine
Wilkerson, Nina C.....Sturgis
Zimont, R. D.....Constantine

## Tuscola County

Barbour, Harry A.....Mayville
Bates, George.....Kingston
Berman, Harry .....Millington
Cook, George Harvey.....Caro
Cook, Raymond.....Akron
Dickerson, Willard W. .....Caro
Dixon, Robert L. .....Caro
Donahue, H. Theron.....Cass City
*Fisher, Robert E...Tombstone, Ariz.
Flett, Richard O.....Millington
Fox, Denton B. .....Caro
*Gugino, Frank James .....
.....Great Lakes, Ill.
*Hoffman, T. E.....Chicago, Ill.
Howlett, R. R.....Caro
Johnson, O. G.....Mayville
Kaven, G. H.....Unionville
MacRae, L. D.....Gagetown
Merrill, Elmer H.....Caro
Morris, Frank L.....Cass City
Rundell, Annie Stevens.....Vassar
Ruskin, D. B. .....Caro
Savage, Lloyd L.....Caro
Shoemaker, J. .....Vassar
Spohn, U. G.....Fairgrove
Starmann, Bernard.....Cass City
Swanson, E. C.....Vassar
*Vail, Harry F...Sheppard Field, Texas
Von Renner, Otto.....Vassar
Zonnis, Marian E.....Caro

## Van Buren County

*Boothby, Carl F.....Lawrence
Boothby, F. M.....Lawrence
Bope, William P.....Decatur
Buckborough, M. W.....South Haven
French, Merle R.....Paw Paw
Gano, Avison.....Bangor
*Giddings, Ralph R.....Bloomingdale
Giffen, John R.....Bangor
Greenman, Newton H.....Decatur
Hall, E. J.....Hartford
Hasty, W. A. .....Gobles
Hoyt, W. F.....Paw Paw
Iseman, Joseph W. .....Paw Paw
Itzen, J. F.....South Haven
Laird, Emma.....Paw Paw
Lowe, Edwin G.....Bangor
Marcovich, A. W.....Paw Paw
Maxwell, J. Charles.....Paw Paw
McNabb, A. A.....Lawrence
Murphy, Norman D.....Bangor
Penoyar, C. L.....South Haven
Sayre, Phillip P.....South Haven
Spalding, R. W.....Gobles
Steele, Arthur H.....Paw Paw
TenHouten, Charles.....Paw Paw
*Terwilliger, Edwin .....
.....Camp Bowie, Texas
Urist, Martin .....South Haven
Williams, F. N.....Hartford
Young, William R.....Lawton

## Washtenaw County

*Agate, George H.....Atlanta, Ga.
Alexander, John .....Ann Arbor
Badgley, C. E.....Ann Arbor
Barker, Paul.....Ann Arbor
Barnes, Allan C.....Ann Arbor
Barnwell, John B.....Ann Arbor
Barr, A. S. .....Ann Arbor
Barss, Harold D.....Ypsilanti
Bassow, Paul H.....Ann Arbor
Baugh, R. H. .....Milan
Beebe, Hugh M.....Ann Arbor
Bell, Margaret.....Ann Arbor
Belser, Walter .....Ann Arbor
Bethel, Frank Hartstuff ....Ann Arbor
*Blair, Thomas H. .....Fort Custer
Brace, William M.....Ann Arbor
Breakey, J. F. .....Ann Arbor
Breakey, James R.....Ypsilanti
Britton, H. B.....Ypsilanti
Brown, Phillip .....Ypsilanti
Bruce, James D. .....Ann Arbor
*Bulmer, Dan J.....Ann Arbor
Burge, Curtis H.....Ann Arbor
*Buscaglia, C. J.....Iceland
Camp, Carl Dudley.....Ann Arbor
Clements, Glenn T.....Ann Arbor
Coller, Frederick A.....Ann Arbor
*Conger, Kyril B.....Ann Arbor
Conn, Jerome W.....Ann Arbor
Cooper, Ralph R.....Ann Arbor
Coxon, Alfred W.....Ann Arbor
Cummings, H. H.....Ann Arbor
Curtis, Arthur C.....Ann Arbor
*Davis, Fenimore E..Indianapolis, Ind.
Day, A. Jackson.....Ann Arbor
De Jong, Russell.....Ann Arbor
DeRyke, Gilbert R. .....Ann Arbor
De Tar, John S.....Milan
Dingman, Reed O. .....Ann Arbor
Donaldson, S. W.....Ann Arbor
*Dowman, Charles E.....Atlanta, Ga.
Duff, Ivan F.....Ann Arbor
Dunstone, H. C.....Ypsilanti
Emerson, Herbert W.....Ann Arbor
Engelke, Otto K.....Ann Arbor
Everett, Meldon.....Ann Arbor
Failing, Joseph H.....Ann Arbor
Falls, Harold F.....Ann Arbor
Farris, Jack M.....Ann Arbor
Field, Henry, Jr.....Ann Arbor
Fitzgerald, Thomas D.....Ann Arbor
Folsome, Clair E.....Tenafly, N. J.
Forsythe, Warren E.....Ann Arbor
Foster, D. Bernard.....Ann Arbor
Fralick, F. Bruce.....Ann Arbor
Freyberg, Richard H.....Ann Arbor
Frye, Carl H. .....Ann Arbor
Furstenberg, Albert C.....Ann Arbor
Ganzhorn, Edwin.....Ann Arbor
Gardiner, Sprague.....Baltimore, Md.
Gates, John L.....Ann Arbor
Gates, Neil A.....Ann Arbor
German, James W.....Akron, Ohio
Green, Mervin E.....Ann Arbor
Gulde, Andros.....Chelsea
Hagerman, George W.....Ann Arbor
Haight, Cameron .....Ann Arbor
Hammond, George.....Ann Arbor
Hammond, W. W.....Plymouth
Hannum, M. R.....Milan
Harris, Bradley M.....Ypsilanti
Haynes, Harley A.....Ann Arbor
Healey, Claire E.....Ann Arbor
Henry, L. Dell.....Ann Arbor
Himler, Leonard E.....Ann Arbor
Hodges, Fred J.....Ann Arbor
Holt, John F.....Ann Arbor
Howard, S. C.....Ann Arbor
Howes, Homer A.....Ann Arbor
Jimenez, Buenaventura.....Ann Arbor
Johnson, Lester J.....Ann Arbor
Johnson, Vincent C.....Ann Arbor
Johnston, Franklin D. ....Ann Arbor
*Jordan, Paul H.....Charleston, S. C.
Jurow, Harry N.....Ann Arbor
Kahn, Edgar A.....Ann Arbor
Keller, Arthur P. .....Ann Arbor
Kemper, J. W.....Ann Arbor
Kennedy, John .....Ann Arbor
Kleinschmidt, Earl E.....Elmhurst
Kleinschmidt, Gladys....Elmhurst, Ill.
Klingman, Theophil.....Ann Arbor
Knoll, Leo.....Ann Arbor
Kretzschmar, Norman R. Ann Arbor
La Fever, Sidney L.....Ann Arbor
Lampe, Isadore .....Ann Arbor
Law, John L.....Ann Arbor
Levin, Manuel .....Ann Arbor
Lichty, Dorman E.....Ann Arbor
List, Carl F.....Ann Arbor
Logie, James W.....Ann Arbor
*Lowell, Vivion F.....Ypsilanti
Lynn, Harold P. .....Ypsilanti
Mackenzie, Aileen Mc.....
..... Ann Arbor
Malcolm, Karl D.....Ann Arbor
Marshall, Mark.....Ann Arbor
Martin, Donald W.....Ypsilanti
Maxwell, James H.....Ann Arbor
McCotter, Rollo E. .....Ann Arbor
McEachern, Thomas H.....Ann Arbor
McKhann, Chas F. .....Ann Arbor
Metzger, Ida.....Ypsilanti
Milford, Albert F.....Ypsilanti
*Miller, Harold..San Francisco, Calif.
Miller, Norman F.....Ann Arbor
Mollin, Edwin L.....Ann Arbor
*Moore, Donald F.....Galveston, Texas
Muehlig, Geo. F. .....Ann Arbor
Myers, Dean W.....Ann Arbor
Nesbit, Reed M.....Ann Arbor
Newburgh, Louis H.....Ann Arbor
Northrup, Robert O.....Ann Arbor
Oliphant, L. W.....Ann Arbor
Palmer, A. A.....Chelsea
Parsons, Robert Jerome....Ann Arbor
Patterson, Ralph M.....Ann Arbor
Peet, Max.....Ann Arbor
Peterson, Reuben .....Duxbury, Mass.
Pillsbury, Charles B.....Ypsilanti
Pollard, H. M.....Ann Arbor
*Power, Frank H.....
.....Panama Canal Zone
Price, Helen F. .....Ann Arbor
Prout, Gordon J.....Saline
Quirk, Edmund J.....Chelsea

*Rague, Paul O.....Fort Custer
Ransom, Henry.....Ann Arbor
Raphael, Theophile.....Ann Arbor
Ratliff, Rigdon K.....Ann Arbor
*Reynolds, Stephen .....
.....Santa Barbara, Calif.
*Richardson, Geo A...Great Lakes, Ill.
Riecker, Herman H.....Ann Arbor
Riggs, Harold W. .....Ann Arbor
Robb, David N. .....Ypsilanti
Rosenbaum, Francis F.....Ann Arbor
Ross, C. Howard.....Ann Arbor
Sacks, Wilma.....Ann Arbor
Salon, Dayton D.....Ann Arbor
Schumacher, W. E.....Ann Arbor
Scott, Wm. C.....Ann Arbor
Scurry, Maurice.....Ann Arbor
Seevers, Maurice H.....Ann Arbor
Seime, Reuben I. .....Whitmore Lake
Sibbald, Malcolm L. .....Chelsea
Sink, Emory W.....Ann Arbor
Slasor, Wm. J. .....Ann Arbor
Smalley, Marianna.....Ann Arbor
Smith, Joseph G.....Ann Arbor
Snow, Glenadine.....Ypsilanti
Solis, Jeanne C.....Ann Arbor
Soller, M. E.....Ypsilanti
Steiner, L. G.....Ann Arbor
Sturgis, Cyrus C.....Ann Arbor
Sundwall, John.....Ann Arbor
Teed, Reed Wallace.....Ann Arbor
Thieme, E. Thurston.....Ann Arbor
Towsley, Harry A.....Ann Arbor
Vander Slice, David.....Ann Arbor
Waggoner, R. W.....Ann Arbor
*Waldron, Alexander M.....
.....Santa Barbara, Calif.
Wanstrom, Ruth C.....Ann Arbor
Washburne, Charles L.....Ann Arbor
Weller, Carl V. .....Ann Arbor
Wessinger, J. A.....Ann Arbor
Wile, Udo J.....Ann Arbor
Williamson, F. B.....Ypsilanti
Wilson, Frank N. .....Ann Arbor
Wisdom, Inez.....Ann Arbor
Woods, J. J.....Ypsilanti
Worth, Melissa H.....Ypsilanti
Wright, Walter J.....Ypsilanti
Wylie, William C.....Dexter
Yoder, O. R.....Ypsilanti

## Wayne County

Aaron, Chas. D.....Detroit
Abrams, Harry M.....Detroit
Abramson, Max .....Detroit
*Adelson, Sidney L.....
..... Langley Field, Va.
Adler, Leopold.....Detroit
*Adler, Sidney.....San Diego, Calif.
Agins, Jacob.....Detroit
Agnelly, Edward J.....Detroit
Agnew, George H.....Detroit
Albrecht, Herman F.....Detroit
Aldrich, E. Gordon.....Detroit
Aldrich, Napier S.....Detroit
Alford, E. S.....Belleville
Allen, John V.....Lincoln Park
Allen, Norman M.....Detroit
Alles, Russell W.....Detroit
Allison, Frank B.....Detroit
Allison, Herbert C.....Detroit
Altman, Raphael.....Detroit
Altshuler, Ira M.....Detroit
Altshuler, Samuel S.....Detroit
Amberg, Emil.....Detroit
Amos, Thomas G.....Detroit
Anderson, Bruce.....Detroit
Anderson, Gordon H.....Detroit
Anderson, J. O.....Detroit
Anderson, Walter L.....Detroit
Anderson, Walter T.....Detroit
Andries, Joseph H.....Detroit
Andries, Raymond C.....Detroit
Ankley, J. W.....Detroit
Anslow, Robert E.....Detroit
Appel, Phillip R.....Detroit
*Appelman, H. B.....Fort Custer
Arehart, Burke W.....Detroit
Armstrong, Arthur G.....Detroit
Armstrong, Oscar S.....Detroit
Arnold, Effie.....Detroit
Aronstam, Noah E.....Detroit
Ascher, Meyer S.....Detroit
Ashe, Stilson R.....Detroit
Ashley, L. Byron.....Detroit
Ashton, F. B.....Highland Park
Asselin, J. L. .....Detroit
Asselin, Regis F.....Detroit
Atchison, Russell M.....Northville
Athay, Roland M.....Detroit
Atler, Lawrence R.....Detroit
Atler, Leroy.....Detroit
August, Harry E.....Detroit
Axelson, A. U.....Detroit
Babcock, Kenneth B.....Detroit
Babcock, L. K.....Detroit
Babcock, Myra E.....Detroit
Babcock, W. L.....Detroit
Babcock, W. W.....Detroit
Bach, Walter F.....Detroit
Bachman, Morris E.....Detroit
Bacon, Vinton A.....Detroit
Baeff, Michael A.....Detroit
Baer, George J.....Detroit
Baer, Raymond B.....Detroit
Bagley, Harry E.....Dearborn
Bailey, Carl C.....Detroit
Bailey, Don A.....Detroit
Bailey, Louis J.....Detroit
Baker, Clarence.....Detroit
Baker, Howard B.....Detroit
Bakst, Joseph.....Detroit
Balaga, F. T.....Detroit
Balcerski, Matthew A.....Detroit
Ballard, Charles S.....Detroit
Balser, Charles W.....Detroit
Baltz, James I.....Detroit
Baranowski, A. W.....Dearborn
Barker, F. Marion.....Grosse Point
Barnes, Donald J.....Detroit
Barnett, Louis L.....Detroit
Barnett, Saul E.....Detroit
Barone, Chas. J.....Highland Park
Barrett, Wyman D.....Detroit
Bartemier, Leo H.....Detroit
Barton, J. R.....Detroit
Bates, Gaylord S.....Detroit
Bauer, A. Robert.....Detroit
Bauer, Benedict J.....Detroit
Bauer, Lester Eugene.....Detroit
Baumer, Moe.....Detroit
Baumgarten, Elden C.....Detroit
Bayles, John G.....Detroit
Beach, Watson.....Detroit
Beam, A. Duane.....Detroit
Beaton, Colin.....Detroit
Beattie, Robert.....Detroit
Beatty, S. M.....Detroit
Beaver, Donald C.....Detroit
Beck, Eva F.....Eloise
Beck, Harold A.....Detroit
Becker, Abraham.....Detroit
Becker, Joseph William.....Detroit
Becklein, C. L.....Detroit
Beckwitt, M. C.....Rochester
Bedell, A.....Detroit
Beer, Jos.....Detroit
Beeuwkes, L. E.....Dearborn
Begle, Howell L.....Detroit
Behn, Claud W.....Detroit
Beigler, Sydney K.....Detroit
Belanger, Ernest E.....River Rouge
Belanger, Henry .....Detroit
Belknap, Warren F.....Detroit
Bell, J. Kenner.....Detroit
Bell, William M.....Detroit
Bennett, Germany E.....Detroit
Bennett, Harry B.....Detroit
Benson, C. D.....Detroit
Benson, Davis A.....Detroit
Bentley, Neil I.....Detroit
*Beresh, Louis.....Romulus
Berge, Clarence A.....Detroit
Bergman, I. I.....Detroit
Bergo, Howard L....Philadelphia, Pa.
Berke, Sydney S.....Detroit
Berkey, Wm. E.....Detroit
Berlien, Ivan C.....Detroit
Berent, Morris.....Detroit
Berman, Harry S.....Detroit
Berman, Lawrence .....Detroit
Berman, Robert.....Detroit
Berman, Sidney.....Detroit
Berman, Sidney .....Detroit
Bernard, Walter G.....Detroit
Bernbaum, Bernard.....Detroit
Bernstein, Albert E.....Detroit
Bernstein, Samuel S.....Detroit
Berry, Joseph E.....Detroit
Besancon, J. H.....Detroit
Best, T. H. Edward.....Detroit
Bicknell, Edgar A.....Detroit
Bicknell, Frank B.....Detroit
Bicknell, Nathan J.....Detroit
Biddle, Andrew P.....Detroit
Birch, John R.....Detroit
Birkelo, Carl C.....Detroit
Bittker, I. Irving.....Detroit
Black, Perry S.....Detroit
Blackford, Roger W.....Detroit
Blaess, Marvin J.....Detroit
Blain, Alex W., Jr.....Detroit
Blain, Jas. H., Jr.....Detroit
Blaine, Max.....Detroit
Blair, K. E.....Detroit
Blashill, James B.....Detroit
Bleier, Alfred .....Detroit
Bleier, Joseph.....Detroit
Bloch, Abraham.....Detroit
Blodgett, William E.....Detroit
Blodgett, Wm. H.....Detroit
Bloomer, Earl .....Dearborn
Blumenthal, Franz L.....Detroit
Boccaccio, John .....Detroit
Boccia, James J.....Detroit
Boddie, Arthur W.....Detroit
Boehm, John D.....Detroit
Boell, Arthur F.....Detroit
Bohn, Stephen.....Detroit
Boileau, Thornton I.....Detroit
Boland, J. Rolland.....Detroit
Boles, A. E.....Detroit
Bookmyer, Ralph H.....Detroit
Bookstein, Abraham M.....Detroit
Bovill, Edwin G.....Detroit
Bower, Franklin T.....Detroit
Bowers, Leo J.....Detroit
Bowman, Frank E.....Detroit
Boyd, John H.....Trenton
Brachman, D. S.....Detroit
Bracken, Andrew H.....Dearborn
Bradshaw, William H.....Detroit
Braitman, Louis .....Detroit
Braley, William N.....Detroit
Bramigk, Fritz W.....Detroit
Brancheau, L. T.....Vassar
Brando, Russell G.....Detroit
Brandt, Edward L.....Detroit
Braun, Lionel.....Detroit
Breitenbecher, Edward R.....Detroit
Brengle, Deane R.....Detroit
Breon, Guy L.....Detroit
Briegel, Walter A.....Detroit
Brines, O. A.....Detroit
Bringard, Elmer L.....Detroit
Brisbois, Harold J.....Plymouth
Brodersen, Harvey S.....River Rouge
Bromme, William.....Detroit
Brooks, A. L.....Detroit
Brooks, Clark D.....Detroit
Brooks, Charles W.....Detroit
Brooks, Nathan.....Detroit
Brosius, William L.....Detroit
Broudo, Philip H.....Detroit
Brown, A. O.....Detroit
Brown, Carlton F.....Detroit
Brown, G. T.....Detroit
Brown, Harvey F.....Detroit
Brown, Henry S.....Detroit
*Brown, J. R.....Great Lakes, Ill.
Brown, Stanley H.....Detroit
Brown, Thomas A.....Detroit
*Brownell, Paul G..Fort Jackson, S. C.
Bruehle, Richard A.....Detroit
Brundage, Richard M.....Detroit
Brunk, Andrew S.....Detroit
Brunk, C. F.....Detroit
Brunke, Bruno B.....Detroit
Brush, Brock Edwin.....Detroit
Bryce, John D.....Detroit
Buchanan, W. Paul.....Detroit
Buchner, Harold W.....Detroit
Budson, Daniel .....Detroit
Buell, Charles E., Jr.....Detroit
Burrows, Howard A.....Dearborn
Burstein, I. Marvin.....Detroit
Burstein, Morris M.....Detroit
Burstein, Harry S.....Detroit
Buesser, Frederick G.....Detroit
Buller, H. L.....Detroit
Burgess, Charles M.....Detroit
Burgess, Jay M.....Detroit
Burns, Robert T.....Detroit
Burnstine, Julius Y.....Detroit
Burnstine, Perry P.....Detroit
Burr, George C.....Detroit
Burr, H. Leonard .....Detroit
Burton, D. T.....Detroit
*Bush, Glendon J.....
.....Wichita Falls, Texas
Bush, Lowell M.....Detroit
Buss, John A.....Detroit
Butler, Harry J.....Detroit
Butler, L. H.....Detroit
Butler, Volney N.....Detroit

Butterworth, Herman K...Lincoln Park
Buttram, Edward J.....Detroit
Byers, Dudley W.....Detroit
Byington, Garner M.....Detroit

Cadieux, Henry W.....Detroit
Caldwell, J. Ewart.....Detroit
Calkins, H. N.....Detroit
Callaghan, T. T.....Detroit
Cameron, A. H.....Wyandotte
Campau, George H.....Detroit
Campbell, Don M.....Detroit
Campbell, Duncan.....Detroit
Campbell, Duncan A.....Detroit
Campbell, Malcolm D.....Detroit
Campbell, Mary B.....Detroit
Candler, Clarence L.....Detroit
Canter, Allie E.....Detroit
Canter, Gayle E.....Detroit
*Caplan, Leslie.....Grider Field, Ark.
Caraway, James E.....Wayne
Carey, Cornelius.....Detroit
Carleton, L. H.....Detroit
Carlson, Harold W.....Detroit
Carlucci, P. F.....Detroit
Carmichael, E. K.....Detroit
Carnes, Harry.....Detroit
Carp, Joseph.....Detroit
Carpenter, C. H.....Detroit
Carpenter, C. J.....Detroit
Carpenter, Glenn B.....Detroit
Carr, J. G.....Detroit
Carroll, E. H.....Detroit
Carroll, Lona B.....Detroit
Carson, Herman J.....Detroit
Carstens, Henry R.....Detroit
Carter, John M.....Detroit
Carter L. F.....Detroit
Cassidy, William J.....Detroit
Castrop, C. W.....Dearborn
*Cathcart, Edward A.....
.....Great Lakes, Ill.
Catherwood, Albert E.....Detroit
*Cavell, Roscoe W.....Detroit
Cetlinski, C. A.....Hamtramck
Chalat, Jacob H.....Detroit
Chall, Henry G.....Detroit
Chance, J. H.....Detroit
Chapman, Aaron L.....Detroit
Chapman, Everett L.....Detroit
Chapman, Paul T.....Detroit
Chapnick, H. A.....Detroit
Chase, Clyde H.....Detroit
Chatel, Arthur N.....Detroit
Chene, George C.....Detroit
Chenik, Ferdinand .....Detroit
Chester, W. P.....Detroit
Chesluk, H. M.....Detroit
Chipman, W. A.....Detroit
Chittenden, George E.....Detroit
Chittick, William R...San Diego, Calif.
Chostner, G. C.....Detroit
Christensen, C. A.....Dearborn
Christopoulos, D. G.....Detroit
Chrouch, Laurence A.....Detroit
Ciprian, Joseph E.....Detroit
Clapper, Muir.....Detroit
Clark, Benjamin W.....Detroit
Clark, C. M.....Detroit
Clark, Donald K.....Dearborn
Clark, Donald V.....Detroit
Clark, George E.....Detroit
Clark, Harold E.....Detroit
Clark, Harry G.....Detroit
Clark, Harry L.....Detroit
Clark, Raymond L.....Detroit
Clarke, Daniel.....Detroit
Clarke, Emilie Arnold.....Detroit
Clarke, George L.....Detroit
*Clarke, Niles A.
Camp Beauregard, La.
Clarke, Norman E.....Detroit
Clifford, Charles H.....Detroit
Clifford, John E.....Detroit
Clifford, T. P.....Detroit
*Clifford, T. P.....Great Lakes, Ill.
Clippert, J. C.....Grosse Ile
Coan, Glenn L.....Wyandotte
Coates, Carl Amos.....Dearborn
Cobane, John H.....Detroit
Cochrane, Edgar G.....Detroit
Cohn, Daniel E.....Detroit
Cohoe, Don A.....Detroit
Cole, Fred H.....Detroit
Cole, James E.....Detroit
Cole, Wyman C. C. .....Detroit
Coleman, Margarete W.....Detroit
Coleman, Wm. G.....Detroit
Coll, Howard R.....Detroit
Collings, M. Raymond.....Detroit
Collins, Edmund F.....Detroit
Colyer, Raymond G.....Detroit
Conley, L. C. M.....Detroit
Connelly, Basil L.....Detroit

Connelly, Richard C.....Detroit
Connolly, Frank.....Detroit
Connolly, John P.....Detroit
Connor, Guy L.....Detroit
Connors, J. J.....Detroit
Conrad, E. R.....Detroit
Cooksey, Warren B.....Detroit
Cooley, Thomas B.....Detroit
Coolidge, Maria Belle..Grosse Pt. Park
Cooper, E. L.....Detroit
Cooper, James B.....Detroit
Corbeille, Catherine.....Detroit
Corbett, John J. .....Detroit
Coseglia, Robert P.....Detroit
Costello, Russell T.....Detroit
Cotruro, L. D.....Detroit
Coucke, Henry O.....Detroit
Coulter, William J.....Detroit
Cowan, Angus L.....Detroit
Cowan, Wilfrid.....Detroit
Cowen, Leon B.....Detroit
Cowen, Robert L.....Detroit
Coyne, Douglas Ruthven.....Detroit
Craig, Henry R.....Eloise
Crane, L. T.....Detroit
Crawford, Albert S.....Detroit
Cree, Walter J.....Detroit
Crews, Thomas H.....Detroit
Croll, L. J.....Detroit
Cross, Harold E.....Detroit
Crossen, Henry F.....Detroit
Croushore, J. E.....Detroit
Cruikshank, Alexander.....Detroit
Curhan, Joseph H.....Detroit
Curry, F. S.....Detroit
Curtis, Frank E.....Detroit
Cushing, Russell G.....Detroit
Cushman, H. P.....Detroit

*Dana, Harold M.....Fort Custer
Danforth, J. C.....Detroit
Danforth, Mortimer E.....Detroit
Darling, Milton A.....Detroit
Darpin, Peter H.....Detroit
Davidson, Harry O.....Detroit
Davies, Thomas S.....Detroit
Davies, Windsor S.....Detroit
Davis, Egbert F.....Detroit
Davis, George H.....Detroit
*Davis, Linden Lee.....
.....Fort Lewis, Wash.
Dawson, F. E.....Detroit
Dawson, W. A.....Dearborn
Day, J. Claude.....Detroit
Defever, Cyril R.....Detroit
Defnet, William A.....Detroit
*DeGroat, Albert .....Fort Custer
DeHoratiis, Joseph.....Detroit
DeJongh, Edwin.....Detroit
Demaray, John F.....Detroit
Dempster, James H.....Detroit
DeNike, A. James.....Detroit
Denis, George M.....Detroit
Denison, Louis L.....Detroit
Derby, Arthur P.....Detroit
Derleth, Paul E.....Detroit
DeTomasi, Rome .....Detroit
Dibble, Harry F.....Detroit
*Dickman, Harry M.....
.....Camp Forrest, Tenn.
Dickson, B. R.....Detroit
Diebel, Nelson W.....Detroit
Diebel, William H.....Detroit
Dietzel, H. O.....Detroit
Dill, Hugh L.....Detroit
Dill, J. Lewis.....Detroit
Dillard, Malcolm.....Detroit
*DiLoreto, Panfilo C .....
.....Fort Custer, Mich.
Dittmer, Edwin.....Detroit
Dixon, Fred W.....Dearborn
Dixon, Ray S.....Detroit
Dodds, John C.....Detroit
Dodenhoff, C. F.....Detroit
Doerr, Louis E.....Detroit
Dolega, Stanley F.....Detroit
Domzalski. C. A.....Detroit
Donald, Douglas.....Detroit
Donald, William M.....Detroit
Donovan, John D.....Detroit
Dorsey, John M.....Detroit
Doty, Chester A.....Detroit
Doub, Howard P.....Detroit
Douglas, Bruce H.....Detroit
Douglas, Clair L.....Detroit
Dovitz, Benjamin W.....Detroit
Dow, Roy E.....Detroit
Dowdle, Edward.....Detroit
Dowling, Harvey E.....Detroit
Dowling, Pearl Christie.....Detroit
Downer, Ira G.....Detroit
Doyle, George H.....Detroit
Drake, James J.....Detroit

Drews, Robert S.....Detroit
Drinkhaus, Harold.....Detroit
Drolshagen, E. A.....Detroit
Droock, Victor.....Detroit
Drummond, Donald L.....Detroit
Dubnove, Aaron.....Detroit
DuBois, Paul W.....Detroit
Dubpernell, Karl.....Detroit
Dubpernell, Martin S.....Detroit
Ducey, Edward F.....Detroit
Duffy, Edward A.....Detroit
Dundas, E. M.....Detroit
Dunlap, Henry A.....Detroit
Dunlap, Samson F.....Detroit
Dunn, Cornelius E.....Detroit
Durocher, Edmund J.....Ecorse
Durocher, Normand E.....Detroit
Dutchess, Charles E.....Detroit
Dwaihy, Paul.....Detroit
Dwyer, Francis.....Detroit
Dysarz, T. T.....Detroit
Dziuba, John F.....Detroit

Eades, Charles C.....Detroit
Eakins, Frederick J.....Dearborn
Eaton, Crosby D.....Detroit
Eder, Joseph R.....Detroit
Eder, Samuel J.....Detroit
Edgar, Irving I.....Detroit
Edgar, Russell G.....Detroit
Edwards, J. W.....Detroit
Eisman, Clarence H.....Detroit
Elliott, William G.....Detroit
Ellis, Seth W.....Detroit
Elvidge, Robert J.....Detroit
Emmert, Herman C.....Detroit
Engel, Earl H.....Wyandotte
Engel, John B.....Detroit
Ensign, Dwight C.....Detroit
Ensing, Osborn.....Detroit
Epstein, S. G.....Detroit
Erickson, Milton H.....Eloise
Erkfitz, Arthur W.....Detroit
Erman, Joseph M.....Detroit
Eschbach, Joseph W.....Dearborn
Estabrook, Bert U.....Detroit
Ettinger, Clayton J.....Detroit
Evans, Joseph M.....Detroit
Evans, Leland S.....Detroit
Evans, William A., Jr.....Detroit
Ewing, C. H.....Detroit
*Falick, Mordecai L.....
.....Fort Jackson, S. C.
Falk, Ira E.....Detroit
Fandrich, Theodore.....Detroit
Farbman, Aaron A.....Detroit
Farbman, Simon.....Detroit
Fauman, David H.....Detroit
Faunce, Sherman P.....Detroit
Fay, George E.....Detroit
Felcyn, W. George.....Detroit
Feldstein, Martin Z.....Detroit
Fellers, Ray L.....Detroit
Fellman, Abraham R.....Detroit
Fenech, Harold B.....Detroit
Fenner, Wm. A.....Detroit
Fenton, E. H.....Detroit
Fenton, Meryl M.....Detroit
Fenton, Russell F.....Detroit
Fenton, Stanley C.....Detroit
Ferguson, Franklin F.....Detroit
Ferrera, Louis V.....Detroit
Fettig, Carl A.....Detroit
Fine, Edward.....Detroit
Fischer, Frederick J.....Detroit
Fisher, Edward F.....Detroit
Fisher, George S.....Detroit
Fisher, O. O.....Detroit
Fisher, R. L.....Detroit
*Fitzgerald, E. W.....Toledo, Ohio
Fitzgerald, James M.....Detroit
Flaherty, H. J.....Detroit
Flaherty, N. W.....Detroit
Flaherty, S. A.....Detroit
Fleming, L. N.....Detroit
Flora, William R.....Detroit
Flower, J. A.....Detroit
Fogt, Herbert E.....Detroit
Fogt, Robert G.....Detroit
Foley, Hugh S.....Dearborn
Font, Anthony J.....Detroit
Foote, James A.....Lincoln Park
Ford, F. A.....Detroit
Ford, George A.....Detroit
Ford, Sylvester.....Detroit
Ford, Walter D.....Detroit
Fordell, F. S.....Detroit
Forrester, Alex V.....Detroit
*Forsythe, John R.....Waco, Texas
Foster, E. Bruce.....Detroit
Foster, Daniel P.....Detroit
Foster, Linus J.....Detroit

Foster, Owen C.....Detroit
Foster, William L.....Detroit
Foster, W. M.....Detroit
Fraser, Harvey E.....Detroit
Fraser, H. F.....Detroit
Frazer, Mary Margaret.....Detroit
Freedman, John .....Detroit
Freedman, Milton .....Detroit
Freeman, D. K.....Detroit
Freeman, Mabel .....Detroit
Freeman, Thelma .....Detroit
Freeman, Wilmer .....Detroit
Freese, John A.....Detroit
Fremont, Joseph C.....Detroit
Freund, Hugo A.....Detroit
Fried, Bernard H.....Detroit
Friedman, David.....Detroit
Friedman, I. H.....Detroit
*Friedlaender, Alex S.....Fort Custer
*Frostic, Wm. D.....
.....Sheppard Field, Texas
Frothingham, George E.....Detroit
Fuller, Hugh M.....Grosse Pointe
Furey, Edward T.....Detroit

Gaba, Howard .....Detroit
Gabe, Sigmund .....Detroit
Gaberman, David B.....Detroit
Galantowicz, H. C.....Detroit
Galdonyi, Laslo L.....Detroit
Galdonyi, N.....Detroit
Galerneau, D. B.....Centerline
Galvin, Paul P.....Detroit
Gannan, Arthur.....Detroit
Gariepy, L. J.....Detroit
Garner, H. B.....Detroit
Gaston, Herbert B.....Detroit
Gates, Nathaniel.....Detroit
Gaynor, Alex.....Detroit
Gehrke, August E.....Detroit
Geib, Ledru O.....Detroit
Geiter, Clyde W.....Detroit
Geitz, William A.....Detroit
Gellert, Isaac S.....Detroit
Gemeroy, J. C.....Detroit
George, A. W.....Detroit
Gerondale, Elmond J.....Detroit
Gibson, James C.....Detroit
Gigante, Nicola .....Detroit
Gignac, Arthur L.....Detroit
Gilbert, Roy S.....Detroit
Gillespie, Stephen M.....Dearborn
Gillman, R. W.....Detroit
Gingold, Samuel M.....Detroit
Ginsberg, Harold I.....Detroit
Gitlin, Charles .....Detroit
Gittins, Perry C.....Detroit
Glasgow, Gordon K.....Detroit
Glassman, Samuel .....Detroit
Glazer, Walter S.....Detroit
Gleason, John E.....Detroit
Glees, John L..Grosse Pointe Farms
Glick, M. J.....Detroit
*Glickman, L. Grant
Minneapolis, Minn.
Glowacki, B. F.....Detroit
Gmeiner, Clarence C.....Detroit
*Goetz, A. G.....Great Lakes, Ill.
Goldberg, Arthur .....Detroit
*Goldin, M. I.....Fort Custer
Goldman, Perry .....Detroit
Goldsmith, Joseph D.....Detroit
Goldstone, R. R.....Detroit
Gollman, Maurice D.....Detroit
Gonne, William S.....Detroit
Good, Wm. H.....Detroit
*Goodrich, B. E.....Dearborn
Goerke, Elmer A.....Romulus
Gordon, John W.....Detroit
Gordon, Whitlock J.....Detroit
Gordon, William H.....Detroit
*Gorelick, Martin J.....
.....Camp Bowie, Texas
Gorning, Raymond P.....Detroit
Gottschalk, Fred W.....Detroit
Gould, S. Emanuel.....Eloise
Goux, R. S.....Detroit
Grace, Joseph M.....Eloise
Graff, J. M.....Detroit
Grain, Gerald O.....Detroit
Grajewski, Leo E.....Detroit
Granger, Francis L.....Detroit
Grant, Heman E.....Detroit
Gratton, Henri L.....Detroit
Green, Ellis R.....Detroit
Green, Lewis .....Detroit
Green, Louis M.....Detroit
*Green, Sydney H.....San Francisco
Greenberg, Julius J.....Detroit
*Greenberg, Morris Z.....Fort Custer
Greene, John B.....Detroit
Greenidge, Robert .....Detroit
Greenlee, William Tate.....Detroit

Greiner, Bert A.....Detroit
Grekin, Joseph .....Detroit
Grekin, Samuel L.....Detroit
Grimaldi, G. J.....Detroit
Grob, Otto .....Detroit
Gronow, A. A.....Detroit
*Grossman, Sol C.....Kalamazoo
Gruber, T. K.....Eloise
Guimaraes, A. S.....Dearborn
Gurdjian, E. S.....Detroit
*Gutow, Benj. R..Fort McClellan, Ala.

Hale, Arthur S.....Detroit
Hall, Arche C.....Detroit
Hall, E. Walter.....Detroit
Hall, James A. J.....Detroit
Hall, Ralph E.....Detroit
Hall, Robert J.....Detroit
Haluska, Joseph A.....Detroit
H'Amada, Norman K.....Detroit
Hamburger, A. C.....Detroit
Hamil, Brenton M.....Detroit
Hamilton, Norman C.....Detroit
Hamilton, Stewart .....Detroit
Hamilton, William .....Detroit
Hamilton, William F.....Detroit
Hammer, Charles A.....Detroit
Hammer, Edwin J.....Detroit
Hammer, Howard J.....Detroit
Hammond, A. E.....Detroit
Hammond, James L.....Inkster
Hand, Fordus V.....Detroit
*Hanna, Carl..Camp Beauregard, La.
Hanna, E. Howard.....Detroit
Hanna, Samuel C.....Detroit
Hansen, Frederick E.....Detroit
Hanser, Joshua.....Detroit
*Hanson, Frederick N..Selfridge Field
Hardstaff, R. John.....Detroit
Hardy, George C.....Detroit
Harelik, E. W.....Detroit
Harkins, Henry N.....Detroit
Harley, Louis M.....Detroit
Harm, W. B.....Detroit
Harmon, Walter.....Detroit
*Harper, Jesse T.....Fort Custer
Harrell, Voss .....Detroit
Harris, Harold H.....Detroit
Harrison, Henry .....Detroit
Harrison, Hugh .....Detroit
Harrison, Wesley .....Detroit
Hart, Charles E.....Detroit
Hart, J. Clarence .....Detroit
Hartgraves, Hallie .....Detroit
Hartman, F. W.....Detroit
Hartman, W. B.....Detroit
Hartzell, John B.....Detroit
Hasley, Clyde K.....Detroit
Hasley, Daniel E.....Detroit
Hasner, R B.....Royal Oak
Hastings, Orville J.....Detroit
Hause, Glen E.....Detroit
*Hauser, I. Jerome....Springfield, Mo.
Hauser, John E.....Detroit
Havers, Howard .....Detroit
Hawken, William C.....Detroit
Hawkins, James W.....Detroit
Hayes, Joseph D.....Detroit
Heath, Leonard P.....Detroit
Heath, Parker .....Detroit
Heavner, L. E.....Detroit
Hedges, Frank W.....Detroit
Hedrick, Donald W.....Detroit
Heenan, T. H.....Detroit
Heideman, Louis .....Detroit
Heldt, Thomas J.....Detroit
Hendelman, Manuel H.....Detroit
*Henderson, A. B..Fort Bragg, N. C.
Henderson, Harold .....Detroit
Henderson, J. L.....Detroit
Henderson, Leslie T.....Detroit
Henderson, Wm. E.....Detroit
Henig, Fred .....Detroit
Henrich, L. E.....Detroit
Herkimer, Dan R.....Lincoln Park
Herrold, Rose E.....Detroit
Herschelmann, Roy F.....Detroit
Hershey, Lynn N.....Detroit
Hewitt, Leland V.....Detroit
Hewitt, Robert S.....Dearborn
Heyner, Stanley A.....Detroit
Hickey, Joseph.....Detroit
Higbee, Arthur L.....Detroit
Hildebrant, Hugh R. .....Detroit
Hileman, Lee .....Ecorse
Hillenbrand, A. E.....Detroit
Hillier, L. G.....Detroit
Hilton, Wm. E.....Detroit
*Hinko, Edward N...New Orleans, La.
Hipp, William .....Detroit
Hirschfield, John W.....Detroit
Hirschman, L. J.....Detroit
Hochman, Morton M.....Detroit
Hodge, James B.....Detroit

Hodges, Roy W.....Detroit
Hodoski, Frank J.....Detroit
Hoenig, Andrew L.....Detroit
Hoffman, E. S.....Detroit
Hoffman, Henry A.....Detroit
Hoffmann, Martin H.....Eloise
Holcomb, A. A.....Northville
Hollander, A. J.....Detroit
Hollis, Henry B.....Detroit
Holman, Herbert H.....Detroit
Holmes, Alfred W.....Detroit
Holstein, A. P.....Detroit
Holt, Henry T.....Grosse Pointe
Honhart, Fred L.....Detroit
Honor, William H.....Wyandotte
Hoobler, B. Raymond.....Detroit
Hookey, J. A.....Detroit
Hooker, Donald H.....Detroit
Hooper, Norman L.....Detroit
*Hoopes, Benjamin F.....Dearborn
Hoops, George B.....Detroit
Hopkins, J. E.....Detroit
Horan, Thomas .....Detroit
Horny, Hugo .....Detroit
Horton, Reece H.....Detroit
Horvath, Louis O.....Detroit
Horwitz, John B.....Detroit
Host, Lawrence N.....Detroit
Howard, Austin Z.....Detroit
Howard, Philip J.....Detroit
Howell, Bert F.....Detroit
Howell, Robert .....Eloise
Howes, Willard Boyden.....Detroit
Hromadko, Louis .....Detroit
Hubbard, John P.....Detroit
Hudson, A. Willis.....Detroit
Hudson, J. Stewart....Grosse Pointe
Hudson, William A.....Detroit
Huegli, Wilfred A.....Detroit
Huff, Reginald G.....Wayne
Hughes, Albertie A.....Detroit
Hughes, Ray W.....Detroit
Hull, L. W.....Detroit
Hunt, T. H.....Detroit
Hunt, Verne G.....Detroit
Hunter, Basil H.....Detroit
Hunter, C. M.....Detroit
Hunter, Elmer N.....Detroit
Husband, Charles W.....Detroit
Hyatt, Jarvis M.....Dearborn
Hyde, F. W.....Detroit

Iacobell, Peter H.....Detroit
Ignatius, A. A.....Detroit
Ihle, Lyman E.....Detroit
Insley, Stanley W.....Detroit
Irwin, W. A.....Detroit
Isaacson, Arthur.....Detroit
Isbey, E. K.....Detroit
Israel, Barney B.....Detroit
Israel, J. G. .....Detroit
Ivkovich, Peter .....Detroit

Jacoby, Myron D.....Detroit
Jacobson, Samuel D.....Eloise
Jaeger, Grove A.....Detroit
Jaeger, Julius P.....Detroit
Jaekel, C. N.....Detroit
Jaffar, Donald J.....Detroit
Jaffe, Jacob .....Detroit
Jaffe, J. L.....Detroit
Jaffe, Louis .....Detroit
Jahsman, William E.....Detroit
James, L. Mae.....Detroit
Jamieson, Robert C.....Detroit
Jarre, Hans A.....Detroit
Jarzembowski, F. B.....Detroit
Jarzynka, Frank J.....Dearborn
Jasion, Lawrence J.....Detroit
Jend, William J.....Detroit
Jenkins, E. A.....Detroit
Jenne, Byron H.....Detroit
Jennings, Alpheus F.....Detroit
*Jennings, R. M.....Great Lakes, Ill.
Jentgen, Charles J.....Detroit
Jentgen, L. G.....Detroit
Jewell, F. C. .....Detroit
Jocz, M. W.....Detroit
Jodar, E. O.....Detroit
John, Hubert R. .....Detroit
Johnson, Homer L.....Detroit
Johnson, Ralph A.....Detroit
Johnson, R. M.....Detroit
Johnson, Vernon P.....Detroit
Johnson, W. H. M.....Detroit
Johnston, Everett V.....Detroit
Johnston, J. A.....Detroit
Johnston, John L.....Detroit
Johnston, William E.....Detroit
Johnstone, B. I.....Detroit
Joinville, E. V.....Detroit
Jones, Adrian R.....Detroit
Jones, Arthur J.....Detroit

*Jones, H. C.....Portsmouth, Va.
Jones, L. Faunt.....Detroit
Jones, Roy D.....Detroit
Jonikaitis, J. J.....Detroit
Joyce, Stanley J.....Detroit
Judd, C. Hollister.....Detroit
*Juliar, Benjamin .....Fort Custer

Kahn, William W.....Detroit
Kallet, Herbert I.....Detroit
Kallman, David .....Detroit
Kallman, Leo .....Detroit
Kallman, R. Robert .....Detroit
Kaminski, Ladislaus R.....Detroit
Kaminski, Zeno L.....Detroit
Kamperman, George A.....Detroit
Kapetansky, A. J.....Detroit
Kapetansky, Nathan J.....Detroit
Kaplita, Walter A.....Detroit
Karr, Herbert S.....Detroit
Kasaback, V. Y.....Detroit
Kasper, Joseph A.....Detroit
Kass, J. B.....Detroit
Kates, Simon C.....Detroit
Katzman, I. S.....Detroit
Kauffman, Wm.....Detroit
Kaump, Donald H.....Detroit
Kay, Edward W.....Detroit
Kay, Harry H.....Detroit
Kazdan, Louis L.....Detroit
Kazdan, Morris A.....Dearborn
Keane, William E.....Detroit
Kearns, Hubert J.....Detroit
Keating, Thomas F.....Detroit
Keene, Clifford H. .....Wyandotte
Keho, Henry J.....East Detroit
Kehoe, Henry J.....East Detroit
Keim, Harther L.....Detroit
Kelly, Edward W.....Detroit
Kelly, Frank A.....Detroit
Kemler, Walter J.....Ecorse
Kennary, James M.....Detroit
Kennedy, Charles S.....Detroit
Kennedy, Lester F.....Detroit
Kennedy, Robert B.....Detroit
Kennedy, Wm. Y.....Detroit
Kenning, John C. .....Detroit
Kenyon, Fanny H.....Detroit
Kern, W. H.....Garden City
Kernick, M. O.....Detroit
Kernkamp, Ralph .....Eloise
Kersten, Armand G.....Detroit
Kersten, Werner .....Detroit
Keshishian, Sarkis K.....Detroit
Keyes, E. C.....Dearborn
Keyes, John W.....Detroit
Kibzey, Ambrose T.....Detroit
Kidner, Frederick C.....Detroit
Kimbell, David C.....Detroit
*Kimberlin, K. K.....
.....Camp Jackson, S. C.
King, Edward D.....Detroit
King, Melbourne J.....Detroit
Kingswood, Roy C.....Detroit
Kirchner, Augustus .....Detroit
Kirker, J. G.....Detroit
Kirschbaum, Harry M.....Detroit
Klebba, Paul .....Detroit
Klein, William .....Detroit
Kleinman, S.....Detroit
Kliger, David .....Detroit
Kline, Starr L.....Detroit
Kloeppel, C. S.....Detroit
Klosowski, Joseph .....Detroit
Klote, M. D.....Detroit
Knaggs, Charles W.....Grosse Pointe
Knaggs, Earl J.....Wyandotte
Knapp, Byron S.....River Rouge
Knapp, Floyd .....Detroit
Knobloch, Edmund J. .....Detroit
Knoch, Hubert S.....Detroit
Knox, Ross M.....Ecorse
Koch, John C.....Detroit
Koebel, R. H.....Detroit
Koerber, Edw. J.....Detroit
Koessler, George L.....Detroit
Kohn, A. Max.....Detroit
Kohn, M. E.....Detroit
Kokowicz, Raymond J.....Detroit
Kolasa, W. B.....Detroit
Kopel, Joseph O.....Detroit
*Korby, George J.....Honolulu, T. H.
Koss, Frank R.....Dearborn
Kossayda, Adam W.....Detroit
*Kovach, Emery..Fort Jackson, S. C.
Kovan, Abraham.....Detroit
Kovan, Dennis D.....Detroit
Kowalski, Valentine L.....Detroit
*Kozlinski, Anthony E.....Detroit
*Krass, Edward W.....
.....Adams Field, Ark.
Kraus, John J.....Detroit
Kreinbring, Geo. E.....Detroit
Kretzschmar, Clarence A.....Detroit

Krieg, Earl G.....Detroit
Krieger, Harley L.....Detroit
Kritchman, M. J.....Detroit
Kroha, Lawrence .....Detroit
Krohn, Albert H.....Detroit
Kubanek, Joseph L.....Eloise
Kucmierz, Francis S.....Detroit
Kuhn, Albert A.....Detroit
Kuhn, Richard F.....Detroit
Kulaski, Chester H.....Detroit
*Kullman, Harold J.....Detroit
Kunz, Franklin.....Detroit
Kurcz, J. A.....Detroit
Kurtz, I. J.....Detroit
Kwasiborski, S. A.....Wyandotte

Laberge, James M.....Wyandotte
LaCore, Ivan .....Detroit
La Ferte, Alfred D.....Detroit
Laird, Robert.....Detroit
Lakoff, Charles .....Detroit
Lam, Conrad R.....Detroit
*Lammy, James V.
Camp Beauregard, La.
La Marche, N. O.....Detroit
Lampman, H. H.....Detroit
Landers, M. B.....Detroit
Landers, M. B., Jr.....Dearborn
Lang, Leonard W.....Detroit
Lange, Anthony H.....Detroit
Lange, William A.....Detroit
Laning, George M.....Detroit
*Lansky, Mandell. Fort McClellan, Ala.
Lapham, Fred E.....Detroit
Larson, John A.....Detroit
Larsson, Bror H.....Detroit
Lash, Michael, Wm.....Detroit
Lasley, James Wm.....Detroit
Lassaline, S. J.....Detroit
Latham, Ruth M.....
.....Upper Montclair, N. J.
Lathrop, Philip L.....Detroit
*Laub, Stanley V.....Annapolis, Md.
Lauppe, Edw. H.....Detroit
Lauppe, F. A.....Detroit
Law, John H.....Detroit
Lazar, Morton R.....Detroit
Leach, David .....Detroit
Leacock, Robert C.....Detroit
Leader, L. R.....Detroit
Leaver, L. Ross.....Detroit
Leckie, George C.....Detroit
Ledwidge, Patrick L.....Detroit
Lee, Harry E.....Detroit
LeGallee, Geo. M.....Detroit
Lehman, Wm. L.....Detroit
Leibinger, Henry R.....Detroit
Leipsitz, Louis S.....Detroit
Leiser, Rudolf .....Eloise
Leithauser, D. J.....Detroit
*Leland, Sol.....Fort Jackson, S. C.
Lemley, Clark .....Detroit
Lemmon, Charles E.....Detroit
Lemmon, Clarence W.....River Rouge
Lentine, James J.....Detroit
Lenz, Willard R.....Detroit
Lepard, C. W.....Detroit
Lepley, Fred O.....Detroit
Lerman, S. E.....Detroit
Lescohier, Alex W.....Grosse Pointe
L'Esperance, Simon P.....Detroit
Leszynski, J. S.....Detroit
Leucutia, Traian .....Detroit
Levin, David M.....Detroit
Levin, Michael M.....Detroit
Levin, Samuel J.....Detroit
Levine, Sidney S.....Detroit
Levitt, Edward L.....Detroit
Levy, David J.....Detroit
Levy, Marvin B.....Detroit
Lewis, Charles T.....Detroit
Lewis, L. A.....Detroit
Lewis, J. Hugh.....Wyandotte
Lewis, Wilfred John.....Detroit
Libbrecht, Robert V.....Lincoln Park
Lieberman, B. L.....Detroit
Liddicoat, A. G.....Detroit
Lightbody, James J.....Detroit
Lignell, Rudolph .....Detroit
Lilly, Charles J.....Detroit
Lilly, Vernon .....Detroit
Linton, James R.....Eloise
Lipinski, Stanley L.....Detroit
Lipkin, Ezra .....Detroit
Lipschutz, Louis S.....Eloise
Livingston, George D.....Detroit
Livingston, George M.....Detroit
Lockwood, Bruce C.....Detroit
Lofstrom, James E.....Detroit
Long, Earle C.....Detroit
Long, John J.....Detroit
Loranger, C. B.....Detroit
*Loranger, Guy L.....Rantoul, Ill.
Lorber, Joseph .....Detroit

*Lord, Herman M.....Denver, Colo.
Lorentzen, Edwin H.....Detroit
Lovas, W. S.....Detroit
Love, W. Thomas.....Detroit
Lovering, William J.....Detroit
Lowrie, G. B.....Detroit
Lowrie, William L., Jr.....Detroit
Lowry, George L.....Detroit
Luce, Henry A.....Detroit
Lutz, Earl F.....Detroit
Lynn, David H.....Detroit
Lynn, Harvey D.....Detroit

Mabee, Frank P.....Detroit
Mabley, J. Donald.....Grosse Pointe
MacArthur, Robt. .....Detroit
MacCraken, Frances L.....Detroit
MacFarlane, Howard W.....Detroit
MacGregor, W. W.....Detroit
Mack, Harold C.....Detroit
MacKenzie, Earle D.....Detroti
MacKenzie, Frank M.....Detroit
MacKenzie, John W.....Grosse Pointe
Mackersie, W. G.....Detroit
MacMillan, Francis B.....Detroit
MacMullen, Frank B.....Detroit
MacQueen, Malcolm D.....Detroit
Maczewski, John E. .....Detroit
Madsen, Martha.....Eloise
Maguire, Clarence E.....Detroit
Mahlatjie, Nathaniel M.....Detroit
Mahoney, Hugh M.....Detroit
*Maibauer, F. P..Oklahoma City Okla.
Maior, Roman H.....Detroit
Mair, Harold U.....Detroit
Maire, E. D.....Grosse Pointe
Malachowski, B. T.....Detroit
Malik, Edward A.....Detroit
Malik, Nur M.....Detroit
Malone, Herbert .....Detroit
Maloney, John A.....Detroit
Mancuso, Vincent S.....Detroit
Mandiberg, Jack N.....Detroit
Manting, Jacob .....Detroit
Maples, Douglas E.....Detroit
Marcus, Daniel B.....Detroit
Marinus, Carleton J.....Detroit
Marion, Donald F.....Detroit
Mark, Jerome.....Detroit
Markoe, Rupert C. L.....Detroit
*Marks, Ben.....Detroit
Marsden, Thomas B.....Detroit
Marsh, Alton R.....Detroit
Marshall, James R.....Detroit
Martin, Edward G.....Detroit
Martin, Elbert A. .....Detroit
Martin, I. Herbert.....Detroit
Martin, L. R.....Detroit
Martin, R. M.....Detroit
Martin, W. C.....Detroit
Martinez, P. O.....Detroit
Martmer, Edgar.....Grosse Pointe
Marwil, T. B.....Detroit
Mason, Percy W.....Detroit
Mateer, John G.....Detroit
Mathes, Charles J.....Detroit
Matthews, Wallace R.....Dearborn
Maun, Mark E. .....Detroit
May, Earl W.....Detroit
May, Frederick T., Jr.....Detroit
Mayer, E. V.....Detroit
Mayer, Willard D.....Detroit
Mayer, William L.....Detroit
Mayne, C. H.....Detroit
McAfee, F. W.....Detroit
McAlpine, Archibald.....Detroit
McAlpine, Gordon S.....Detroit
McClellan, G. L.....Detroit
McClellan, Robert J.....Detroit
McClelland, C. C.....Detroit
McClendon, James J.....Detroit
McClintock, J. J.....Detroit
McClure, Roy D.....Detroit
McClure, Robert W.....Detroit
McClure, William R.....Detroit
*McColl, Charles W...Alexandria, La.
McColl, Clarke M.....Detroit
McColl, Kenneth M.....Detroit
McCollum, E. B.....Detroit
McCord, Carey P.....Detroit
McCormick, Colin C.....Dearborn
McCormick, Crawford W.....Detroit
McCormick, Frank T.....Detroit
McCullough, Lester E.....Detroit
McDonald, Allan W.....Detroit
McDonald, Angus L.....Detroit
McDonald, Donald.....Detroit
McDonald, George O.....Detroit
McDonald, Grant.....Detroit
McDonald, Peter W. .....Wyandotte
McDougall, Bernard Wm.....Detroit
McFadyen, Hugh A.....Detroit
McGarvah, A. W.....Detroit
McGarvah, Joseph A.....Detroit

McGavran, Harry G.....Detroit
McGillicuddy, Walter E.....Detroit
McGlaughlin, Nicholas ....Wyandotte
McGough, Joseph M.....Detroit
*McGraw, Arthur B.....Dearborn
McGuire, M. Ruth.....Detroit
McIntosh, W. V.....Detroit
McKean, G. Thomas.....Detroit
McKean, Richard M.....Detroit
McKenna, Charles J.....Detroit
McKinnon, John D.....Detroit
McLane, Harriett E.....Detroit
McLean, Don W.....Detroit
McLean, Harold G.....Detroit
McMahon, Gerald H.....Detroit
McPhail, Malcolm .....Detroit
McPherson, R. J.....Detroit
McQuiggan, Mark R.....Detroit
McRae, Donald H.....Detroit
Meader, F. M.....Detroit
Meek, Stuart F.....Grosse Pointe
Meinecke, Helmuth A.....Detroit
Mellen, Hyman S.....Detroit
Menagh, Frank R.....Detroit
Mendelssohn, R. J.....Detroit
Merkel, Charles C.....
Grosse Pointe Village
Merrill, Lionel N.....Detroit
Merrill, William O.....Detroit
Merritt, Earl G.....Detroit
Metzger, Harry C.....Detroit
Meyers, M. P.....Detroit
Meyers, Solomon G.....Detroit
Miley, H. H.....Detroit
Miller, Daniel H. .....Detroit
Miller, Harry A.....Detroit
Miller, Hazen L.....Detroit
Miller, Karl.....Detroit
Miller, Maurice P.....Trenton
Miller, Myron H.....Detroit
Miller, T. H.....Detroit
Miller, Wm. E.....Detroit
Mills, Clinton C.....Detroit
Mills, Georgia V.....Detroit
Miner, Stanley G.....Detroit
Minor, Edward G.....Detroit
Mintz, Edward I.....Detroit
Miral, Solomon P.....Detroit
Mishelevich, Sophie .....Detroit
Mitchell, C. Leslie.....Detroit
Mitchell, Gertrude F.....Detroit
Mitchell, W. Bede.....Detroit
Moehlig, Robert C.....Detroit
Moisides, V. P.....Detroit
Moll, Clarence D.....Detroit
Molner, Joseph G.....Detroit
Moloney, J. Clark.....Detroit
Mond, Edward .....Detroit
Monfort, Willard .....Detroit
Montante, Jos. R.....Detroit
Montgomery, John C.....Detroit
Morand, Louis J.....Detroit
Moriarity, George .....Detroit
Morin, John B.....Detroit
Moritz, H. C.....Detroit
Morley, Harold B.....Detroit
Morley, James A.....Detroit
Moroun, S. J.....Detroit
Morrill, D. M.....Detroit
Morris, Harold L.....Detroit
Morrison, Marjorie G. E.....Detroit
Morse, Plinn F.....Detroit
*Morton, David G...Camp Bowie, Tex.
Morton, J. B.....Detroit
Mosee, W. Jones.....Detroit
Mosen, Max M.....Detroit
Moss, E. B.....Detroit
Moss, Nathan H.....Detroit
Mott, Carlin P.....Detroit
Muellenhagen, Walter J.....Detroit
Munson, F. T.....Detroit
Muntyan, Andrew .....Detroit
Murphy, D. J.....Detroit
Murphy, Frank J.....Detroit
Murphy, John M.....Detroit
Murphy, Scipio G.....Detroit
Murphy, W. M.....Detroit
Murray, George M.....Detroit
Murray, William A.....Detroit
Musser, Fred C.....Detroit
Myers, George P.....Detroit
Myers, Gordon.....Detroit

Nagle, John W.....Wyandotte
Naud, Henry J. .....Detroit
Nawotka, Edward E.....Detroit
Naylor, A. E.....Detroit
Naylor, Arthur H.....Detroit
Neff, I. H.....Detroit
*Neeb, Walter G...Camp Shelby, Miss.
Nelson, Harry M.....Detroit
Nelson, Margaret E.....Detroit
Nelson, Victor E.....Detroit
Neumann, Arthur J.....Detroit
Newbarr, Arthur A.....Detroit
Newcomer, Sheldon R.....Detroit
Newman, Max Karl.....Detroit
Nickerson, Dean .....Detroit
Nielson, Aage.....Detroit
Nigro, Norman D. .....Detroit
Nill, John B.....Detroit
Nill, William F.....Detroit
Nolting, Wilfred S.....Detroit
Norconk, A. A.....Detroit
Norris, Edgar H.....Detroit
Northcross, Daisy L.....Detroit
Northrop, Arthur K.....Detroit
Norton, Chas. S. .....Detroit
Novy, R. L. .....Detroit
Nowicki, Joseph A.....Detroit

O'Brien, E. J.....Detroit
O'Brien, G. M.....Detroit
O'Donnell, Dayton H.....Detroit
Ohmart, Galen B.....Detroit
O'Hora, James T.....Detroit
Olechowski, L. .....Detroit
Olenikoff, Alex .....Detroit
Olmsted, Wm. R.....Detroit
Olney, H. E.....Detroit
Oman, Cyrus F.....Detroit
Oppenheim, J. M.....Detroit
Oppenheim, Milton M.....Detroit
Opperman, Rudolph.....Detroit
Orecklin, L.....Detroit
Organ, Fred W.....Detroit
Ormond, John K.....Detroit
O'Rourke, Randall M. .....Detroit
Osius, Eugene A.....Detroit
Osowski, Felix A. .....Detroit
Ott, Harold A.....Detroit
Ottaway, John P.....Detroit
Ottrock, Anton .....Detroit
*Owen, Clarence I.....Detroit
Owen, Samuel H. C.....Detroit

Palmer, Hayden .....Detroit
Palmer, R. Johnston.....Detroit
Pangburn, L. E.....Detroit
Panzner, Edward J.....Detroit
Parker, Benjamin R.....Detroit
Parker, Walter R.....Detroit
Parr, R. W.....Detroit
Parsons, John P....Grosse Pointe Park
Pasternacki, Norbert T.....Detroit
Patterson, Walter G.....Detroit
Pawlowski, Jerome .....Detroit
Paysner, Harry A.....Detroit
Peabody, Charles William.....Detroit
Peacock, Lee.....Detroit
Pearse, Harry A.....Detroit
Peggs, George F. .....Detroit
Peirce, Howard W.....Detroit
Penberthy, G. C.....Detroit
Pensler, Meyer.....Detroit
Pequegnot, Charles F.....Detroit
Perdue, Grace M.....Detroit
Perkin, Frank S.....Detroit
Perkins, Ralph A.....Grosse Pointe
Perlis, H. L.....Detroit
*Perry, Alvin LaForge..El Paso, Texas
Peterman, Earl A. .....Detroit
Petix, Samuel C.....Detroit
Pfeiffer, Rudolph L.....Detroit
Phillips, Fred W.....Detroit
Pickard, Orlando W.....Detroit
Pierce, Frank L.....Detroit
Pinckard, Karl G.....Dearborn
Pink, Rose M. .....Detroit
Pinney, Lyman J.....Detroit
Pino, Ralph H.....Detroit
Piper, Clark C. .....Detroit
Piper, Ralph R.....Detroit
Plaggemeyer, H. W.....Detroit
Pliskow, Harold .....Detroit
Podezwa, J. W.....Hamtramck
Pollock, John J.....Detroit
Poole, Marsh W.....Detroit
Poos, Edgar E.....Detroit
Porretta, Anthony C.....Detroit
Porretta, F. S.....Detroit
Posner, Irving .....Detroit
Potts, E. A.....Detroit
Pratt, Jean P.....Detroit
*Pratt, Lawrence...Fort Lewis, Wash.
Priborsky, Benjamin H.....Detroit
Price, A. H.....Detroit
Price, Alvin Edwin.....Detroit
Proctor, Bruce.....Detroit
Proud, Robert H.....Flat Rock
Ptolemy, H. H.....Detroit
Pugliesi, Benedetto .....Detroit
Purcell, Frank H.....Detroit
*Putra, A. M.....Camp Forrest, Tenn.
Pyle, Wynand.....Mountclair, N. J.

Quigley, William .....Detroit
Rabinovitch, Bella .....Detroit
Rahm, Lambert P.....Detroit
Raiford, Frank P.....Detroit
Rand, Morris .....Detroit
Rao, John O.....Detroit
Raskin, John.....Detroit
Raskin, Morris .....Detroit
Rastello, Peter B.....Detroit
Ratigan, C. S.....Dearborn
Raynor, Harold F.....Detroit
Reberdy, George J.....Detroit
Reed, H. Walter.....Detroit
Reed, Ivor E.....Detroit
Rees, Howard C.....Detroit
*Reid, Wesley G.....Camp Polk, La.
Reiff, Morris V.....Detroit
Reinbolt, Charles A.....Detroit
Reinsh, Ernest R.....Detroit
Reisman, Nathan J.....Detroit
Rekshaw, W. R.....Dearborn
Renaud, G. L.....Detroit
Rennell, Leo P.....Detroit
Renz, Russell H.....Detroit
Repp, William A.....Detroit
*Reske, Alven....Camp Bowie, Texas
Reveno, William S.....Detroit
Rexford, Walton R.....Detroit
Reye, H. A.....Detroit
Reyner, C. E.....Detroit
Reynolds, Lawrence .....Detroit
Reynolds, R. P.....Detroit
Rezanka, Harold J.....Detroit
Rhoades, F. P.....Detroit
Rice, C. Malcolm, Jr.....Detroit
Rice, Harold B.....Detroit
Rice, Meshel .....Detroit
Richards, R. Milton .....Detroit
Richardson, Allan L.....Detroit
Richardson, Robert.....Detroit
Rick, Paul .....Detroit
Ridge, Ralph W.....Wyandotte
Ridley, Edward R.....Detroit
Rieckhoff, George G.....Detroit
Rieger, John B.....Detroit
Rieger, Mary H.....Detroit
Riseborough, E. C.....Detroit
Rizzo, Frank .....Detroit
Robb, Edward L.....Detroit
Robb, Herbert F.....Belleville
Robb, J. M.....Grosse Pointe Village
Roberts, Arthur J.....Ecorse
Robertson, A. E.....Detroit
Robillard, Henry .....Detroit
Robins, Samuel C.....Detroit
Robinson, George W.....Detroit
*Robinson, Harold A..Scott Field, Ill.
Robinson, R. G.....Detroit
*Rogers, A. Z.....Grosse Pte. Woods
Rogers, James D.....Wyandotte
Rogin, James R.....Detroit
Rogoff, A. S.....Detroit
Rohde, Paul C.....Detroit
Roman, Stanley J.....Detroit
Roney, Eugene N.....Detroit
*Root, Chas. T.....Carlisle, Pa.
Rosbolt, Oscar P.....Detroit
Rose, Bernard .....Detroit
Rosen, Robert.....Detroit
Rosenman, J. D.....Detroit
Rosenthal, Louis H.....Detroit
Rosenwach, Felix F.....Detroit
Rosenzweig, Saul .....Detroit
*Ross, Arno.....Waukegan, Ill.
Ross, D. G.....Grosse Pointe
Ross, Ben C.....Detroit
Ross, Samuel H.....Detroit
Rotarius, E. M.....Detroit
Roth, Edward T.....Detroit
Roth, Theodore I.....Detroit
Rothbart, H. B.....Detroit
Rothman, Emil D.....Detroit
Rothstein, Hymen.....Dearborn
Rottenberg, Leon .....Detroit
Rowda, Michael S.....Detroit
Rowell, Robert G.....Eloise
Rowell, Wilfred J.....Detroit
Rubright, LeRoy W.....Detroit
Rucker, Julian J.....Detroit
Rueger, Milton J.....Detroit
Rueger, Ralph C.....Detroit
Runge, Edward F. .....Detroit
Rupprecht, Emil F.....Detroit
Russell, John C.....Detroit
Ryan, W. D.....Detroit
Rydzewski, Joseph B.....Detroit
Ryerson, Frank L.....Detroit

Sachs, Herman K.....Detroit
Sack, A. G.....Detroit
Sa'di, Lutfi.....Detroit
Sadowski, Roman .....Detroit
Sage, Edward O.....Vicksburg, Miss.
Sager, E. L.....Detroit
St. Amour, Hector J.....Detroit

St. Louis, R. J. ..... Detroit
Salchow, Paul T. ..... Detroit
Salowich, John N. ..... Detroit
Saltzstein, Harry C. ..... Detroit
Sander, I. W. ..... Detroit
Sanders, Alex W. ..... Detroit
Sanderson, Alvord R. ..... Grosse Pointe Park
Sanderson, James H. ..... Detroit
Sanderson, Joseph L. ..... Detroit
Sanderson, Suzanne ..... Detroit
*Sandler, Nathaniel .... Springfield, Mo.
Sandweiss, David J. ..... Detroit
Sands, G. E. ..... Detroit
Sargent, William R. ..... Detroit
Sauter, Simon H. ..... Detroit
Savignac, Eugene M. ..... Detroit
Sawyer, Harold F. ..... Detroit
Schaefer, Robert L. ..... Detroit
Schaeffer, Martin ..... Detroit
*Scarney, Herman D. ..... Detroit
Schembeck, I. S. ..... Detroit
Schenden, A. J. ..... Melvindale
Schiller, A. E. ..... Detroit
Schinagel, Geza ..... Detroit
Schlacht, George F. ..... Romulus
Schlafer, Nathan H. ..... Detroit
Schlemer, John H. ..... Detroit
Schmidt, Harry E. ..... Detroit
Schmidt, J. Robert ..... Detroit
Schmidt, Milton R. ..... Trenton
Schmitt, Norman L. ..... Detroit
Schneck, Robert J. ..... Detroit
Schneider, Curt P. ..... Detroit
Schoenfield, Gilbert D. ..... Detroit
Schooten, Sarah S. ..... Detroit
Schreiber, Frederick ..... Detroit
Schroeder, Carlisle F. ..... Detroit
Schulte, Carl H. ..... Detroit
Schultz, Ernest C. ..... Detroit
Schultz, Robert F. ..... Detroit
Schwartz, H. Allen ..... Detroit
Schwartz, Louis A. ..... Detroit
Schwartzberg, Jos. A. ..... Detroit
Schweigert, C. F. ..... Detroit
Sciarrino, Stanley V. ..... Detroit
Scott, James W. ..... Detroit
Scott, R. J. ..... Detroit
Scott, Wm. J. .... Grosse Pointe Farms
Scruton, Foster D. ..... Detroit
Seabury, Frank P. ..... Detroit
Secord, Eugene W. ..... Detroit
Seeley, James B. ..... Dearborn
Seeley, Ward F. ..... Detroit
Segar, Lawrence F. ..... Detroit
Seibert, Alvin H. ..... Detroit
Selby, C. D. ..... Detroit
Seliady, Joseph E. ..... Northville
Sellers, Charles W. ..... Detroit
Sellers, Graham ..... Detroit
Selling, Lowell ..... Detroit
Selman, J. H. ..... Detroit
Sewell, George S. ..... Detroit
Seymour, William J. ..... Detroit
Shafarman, Eugene ..... Detroit
Shaffer, Joseph H. ..... Detroit
Shaffer, Loren W. ..... Detroit
Shafter, Royce R. ..... Detroit
Sharrer, Charles H. ..... Detroit
Shaw, Robert G. ..... Detroit
Shawan, H. K. ..... Detroit
Shebesta, Bessey H. ..... Detroit
Shebesta, Emil ..... Detroit
Sheldon, John A. ..... Detroit
Shelton, C. F. ..... Detroit
Sheppard, Emma L. W. ..... Detroit
Sheridan, Charles R. ..... Detroit
Sherman, B. B. ..... Detroit
Sherman, William L. ..... Detroit
Sherrin, Edgar R. ..... Detroit
Sherwood, DeWitt L. ..... Detroit
Shewchuk, Alexander P. ..... Detroit
Shields, William L. ..... Detroit
*Shifrin, Peter G. .... Mare Island, Cal.
Shipton, W. Harvey ..... Detroit
Shlain, Benjamin ..... Detroit
Shore, O. J. ..... Detroit
Shotwell, Carlos W. ..... Detroit
Shulak, Irving B. ..... Detroit
Shurly, Burt R. ..... Detroit
Sickels, Edward W. ..... Detroit
Siddall, Roger S. ..... Detroit
Siefert, John L. ..... Detroit
Siefert, William A. ..... Detroit
Siegel, Henry ..... Dearborn
Sill, Henry W. ..... Detroit
Silvarman, I. Z. ..... Detroit
Silverman, M. M. ..... Detroit
Simons, Edward J. ..... Detroit
Simon, Emil R. ..... Dearborn
Simpson, C. E. ..... Detroit
Simpson, H. Lee ..... Detroit
Sippola, George W. ..... Detroit
Sisson, John M. ..... Detroit

Siwka, Isidore J. ..... Detroit
Skinner, E. F. ..... Detroit
Skinner, W. Clare ..... Detroit
Skolnick, Max H. ..... Detroit
Skrzycki, Stephen S. ..... Detroit
Skully, E. J. ..... Detroit
Skully, G. A. ..... Detroit
Sladen, Frank J. ..... Detroit
Slate, Raymond N. ..... Detroit
Slaugenhaupt, J. G. ..... Detroit
Slaughter, Fred M. ..... Detroit
Slaughter, Wayne C. ..... Detroit
Slazinski, Leo W. ..... Detroit
*Slevin, John G. ..... Fort Custer
Slipson, Edith G. ..... Detroit
Sliwin, Edward P. ..... Detroit
Small, Henry ..... Detroit
Smeck, Arthur R. ..... Detroit
Smeltzer, Merrill ..... Detroit
Smith, Clarence V. ..... Detroit
Smith, Claude A. ..... River Rouge
Smith, F. Janney ..... Detroit
*Smith, Fred R. ..... Camp Polk, La.
Smith, Gerritt Calvin ..... Detroit
Smith, Henry L. ..... Detroit
Smith, J. Allen ..... Detroit
Smith, James A. ..... Detroit
Smyth, Charley J. ..... Eloise
Snedeker, Bernard C. .... Highland Park
Snow, L. W. ..... Northville
Socall, Charles J. ..... Detroit
Sokolov, Raymond A. ..... Detroit
Somers, Donald C. ..... Detroit
Sonda, Lewis P. ..... Detroit
*Sorock, Milton L. .... Charleston, S. C.
Souda, Andrew ..... Detroit
Spademan, Loren C. ..... Detroit
Spalding, Edward D. ..... Detroit
Sparks, J. H. ..... Detroit
Sparling, Harold I. ..... Northville
Sparling, Irene L. ..... Northville
Speck, Carlos C. ..... Detroit
*Spector, M. C. .... Camp Davis, N. C.
Spencer, Frank ..... Detroit
Spero, Gerald D. ..... Detroit
Sperry, Frederick L. ..... Detroit
Springborn, B. R. ..... Detroit
*Sprunk, Carl J. ..... Kalamazoo
Sprunk, John P. ..... Detroit
Squires, W. H. ..... Eloise
Stafford, Frank W. J. ..... Detroit
Stageman, John Condon ..... Detroit
Stalker, Hugh ..... Grosse Pointe
Stamell, Meyer ..... Detroit
Stamos, Harry F. ..... Detroit
Stanton, James M. ..... Detroit
Stapleton, William J., Jr. ..... Detroit
Starrs, Thomas C. ..... Detroit
Stefani, E. L. ..... Detroit
Stefani, Raymond T. ..... Detroit
Steffes, Everette M. ..... Detroit
Stein, Albert H. ..... Detroit
Stein, James R. ..... Detroit
Stein, Saul C. ..... Detroit
Steinbach, Henry B. ..... Detroit
Steinberger, Eugene ..... Detroit
Steiner, L. J. ..... Detroit
*Steiner, Max ..... Camp Davis, N. C.
Stellhorn, Chester E. ..... Detroit
Stellhorn, Mary Christine ..... Detroit
Sterling, Lawrence ..... Detroit
Sterling, Robert R. ..... Detroit
Stern, Edward A. ..... Detroit
Stern, Harry L. ..... Detroit
Stern, Louis D. ..... Detroit
Stern, Leonard H. ..... Detroit
Stevens, Rollin H. ..... Detroit
Stewart, Thomas O. ..... Detroit
Stirling, Alex M. ..... Detroit
Stocker, Harry ..... Detroit
Stockwell, B. W. ..... Detroit
Stokfisz, T. ..... Detroit
Stout, Lindley H. ..... Detroit
Stricker, Henry D. ..... Detroit
Strickroot, Fred L. ..... Detroit
Strohschein, Don F. ..... Detroit
Stubbs, C. T. ..... Detroit
Sugar, David I. ..... Detroit
*Sugarman, Marcus H. ..... Fort Custer
Sullivan, Hugh A. ..... Detroit
Summers, William S. ..... Detroit
Surbis, John P. ..... Detroit
Sutherland, J. M. ..... Detroit
Swanson, Cleary N. ..... Detroit
Swanson, Carl W. ..... Detroit
Swartz, J. N. ..... Detroit
Swift, Karl L. ..... Detroit
Switzer, B. C. ..... Detroit
Syphax, Charles S., Jr. ..... Detroit
Szappanyos, Bela T. ..... Detroit
Szedja, J. C. ..... Detroit
Szildgyi, Emerick D. ..... Detroit
Szlachelka, Vincent E. ..... Detroit
Szmigiel, A. J. ..... Detroit

Tamblyn, E. J. ..... Detroit
Tann, H. E. ..... Detroit
Tapert, Julius C. ..... Detroit
Tapert, R. T. ..... Detroit
Tassie, Ralph N. ..... Detroit
Tatelis, Gabriel ..... Detroit
Taylor, Ivan B. ..... Detroit
Taylor, Nelson M. ..... Grosse Pointe
Taylor, Reu Spencer ..... Detroit
Tear, Malcolm J. ..... Detroit
Teitelbaum, Myer ..... Detroit
Tenaglia, Thomas A. ..... Ecorse
Texter, Elmer C. ..... Detroit
*Thomas, Alfred E. .. Fort Bragg, N. C.
Thomas, Delma F. ..... Detroit
Thomas, Fred W. ..... Detroit
Thomas, Joe T. ..... Detroit
Thompson, H. O. ..... Detroit
Thompson, James B. ..... Detroit
Thompson, W. A. ..... Detroit
Thomson, Alexander ..... Detroit
Thosteson, George C. ..... Detroit
Tichenor, E. D. ..... Detroit
Tomsu, Charles L. ..... Detroit
Top, F. H. ..... Detroit
Torrey, H. N. ..... Detroit
Townsend, Frank M. ..... Detroit
Townsend, K. E. ..... Detroit
Trask, Harry D. ..... Detroit
Tregenza, W. Kenneth ..... Detroit
Trevett, Lawrence D. ..... Detroit
Trinity, Granville J. ..... Detroit
Troester, George A. ..... Detroit
Trombley, Bryan ..... Detroit
Trombley, Joseph J., Jr. ..... Detroit
Troxell, Emmett C. ..... Detroit
Trythall, S. W. ..... Detroit
Tufford, Norman G. ..... Detroit
Tulloch, John ..... Detroit
Tupper, Roy D. ..... Detroit
Turcotte, Vincent J. ..... Detroit
Turkel, Henry ..... Detroit
Tuttle, Wm. M. ..... Detroit
Tyson, Wm. E. E. ..... Detroit

Ulbrich, Henry L. ..... Detroit
Ulch, Harold W. ..... Detroit
Ulrich, Willis H. ..... Detroit
Umphrey, Clarence E. ..... Detroit
Usher, William Kay ..... Detroit

Vale, C. Fremont ..... Detroit
VanBaalen, M. R. ..... Detroit
VanBeceLaere, Lawrence H. ..... Ecorse
Van de Velde, Honore ..... Detroit
VanGundy, Clyde R. ..... Detroit
Van Heldorf, Harry ..... Detroit
Van Nest, A. E. ..... Detroit
Van Rhee, George ..... Detroit
Van Riper, Steven L. ..... Eloise
Vardon, Edward M. ..... Detroit
Vasu, V. O. ..... Detroit
Vergosen, Harry E. ..... Detroit
Vernier, Jean A. ..... Detroit
Vincent, J. LeRoi ..... Wayne
Voegelin, Adolph E. ..... Detroit
Voelkner, George H. ..... Detroit
Vogel, Hyman A. ..... Detroit
Vokes, Milton D. ..... Detroit
Von der Heide, E. C. ..... Detroit
Vossler, A. E. ..... Detroit
Vreeland, C. Emerson ..... Detroit

Waddington, Joseph E. G. ..... Detroit
Wadsworth, George H. ..... Detroit
Waggoner, C. Stanley ..... Detroit
Wainger, M. J. ..... Detroit
Waldbott, George L. ..... Detroit
*Walker, Enos G. ..... Fort Custer
Walker, J. Paul ..... Detroit
Walker, Roger V. ..... Detroit
Wallace, S. Willard ..... Detroit
Walls, Arch ..... Detroit
Walser, Howard C. ..... Detroit
Walsh, Charles R. ..... Detroit
Walsh, Francis P. ..... Detroit
Walters, Albert G. ..... Detroit
Waltz, Frank D. B. ..... Detroit
Wander, William G. ..... Detroit
Ward, W. K. ..... Detroit
Warden, Horace F. W. ..... Detroit
Warner, P. L. ..... Detroit
Warren, Wadsworth ..... Detroit
Wassermann, Lewis C. ..... Detroit
Watson, Douglas J. ..... Detroit
Watson, Ernest Hamilton ..... Detroit
Watson, Harwood G. ..... Dearborn
Watson, J. Edwin ..... Detroit
Watson, Robert W. ..... Highland Park
Watters, F. L. ..... Detroit
Watts, Frederick B. ..... Detroit
Watts, John J. ..... Detroit
Wax, John H. ..... Detroit
Wayne, M. A. ..... Detroit

Waszak, Charles J. . . . . Detroit
Weaver, Clarence E. . . . . Detroit
Weaver, Delmar F. . . . . Detroit
Weed, Milton R. . . . . Detroit
Wehenkel, Albert M. . . . . Detroit
Weiner, M. B. . . . . Detroit
Weingarden, David H. . . . . Detroit
Weinstein, Jacob . . . . . Detroit
Weisberg, A. Allen. . . . . Detroit
Weisberg, Harry . . . . . Detroit
Weisberg, Jacob . . . . . Detroit
Weiser, Frank A. . . . . Detroit
Welch, John H. . . . . Detroit
Weller, Charles N. . . . . Detroit
Wells, Martha . . . . . Detroit
Weltman, Carl . . . . . Detroit
Wendel, Jacob S. . . . . Detroit
Wershow, Max . . . . . Detroit
Westlund, Norman . . . . . Dearborn
Weston, Bernard. . . . . Detroit
Weston, Horace L. . . . . Detroit
Westover, Chas. J. . . . . Plymouth
Weyher, Russell F. . . . . Detroit
Whalen, Neil J. . . . . Detroit
Wharton, Thomas V. . . . . Wyandotte
White, Milo R. . . . . Detroit
White, Milton W. . . . . Detroit
White, Prosper D. . . . . Detroit
White, Theodore M. . . . . Detroit
Whitehead, L. S. . . . . Detroit
*Whiteley, Robt. E. . . Philippine Islands
Whitney, Elmer L. . . . . Detroit
Whitney, Rex E. . . . . Detroit
Whittaker, Alfred H. . . . . Detroit
Wiant, R. E. . . . . Detroit
Wickham, A. B. . . . . Detroit
Wiechowski, Henry E. . . . . Detroit
*Wiener, I. . . . . Fort Benning, Ga.
Wight, Fred B. . . . . Detroit
Wilcox, Leslie F. . . . . Detroit
Wilkinson, Arthur P. . . . . Detroit
Williams, C. J. . . . . Detroit
Williams, Mildred C. . . . . Detroit
*Williamson, Edwin M. . . . . Randolph Field, Tex.
Willis, Henry S. . . . . Northville
Wills, J. N. . . . . Detroit
*Willson, Wesley W. . . . . Fort Lewis, Wash.
Wilson, C. Stuart. . . . . Detroit
Wilson, Gerald A. . . . . Detroit
Wilson, James Leroy. . . . . Detroit
Wilson, John D. . . . . Detroit
*Wilson, M. C. . . . . Detroit
Wilson, Walter J., Jr. . . . . Detroit
*Winsor, Carlton Webb. . Porto Rico
Wishropp, E. A. . . . . Detroit
Wisner, Harold E. . . . . Detroit
Wissman, H. C. . . . . Detroit
Wittenberg, Samson S. . . . . Detroit
Wittenberg, Sydney S. . . . . Detroit
Witter, Frank C. . . . . Detroit
Witter Joseph. . . . . Highland Park
Witter, Joseph A. . . . . Detroit
Witus, Morris . . . . . Detroit
Witwer, Eldwin R. . Grosse Pointe Park
Wolfe, Max O. . . . . Detroit
Wollenberg, Robert A. C. . . . . Detroit
Wood, Kenneth. . . . . Detroit
Woodry, Norman L. . . . . Detroit
Woods, H. B. . . . . Detroit
Woods, W. Edward. . . . . Detroit
Woodworth, William P. . . . . Detroit
Wreggit, W. R. . . . . Highland Park
Wruble, Joseph . . . . . Detroit
Wygant, Thelma . . . . . Detroit

Yesayian, H. G. . . . . Detroit
Yonkman, Frederick F. . . . . Detroit
Yott, William J. . . . . Detroit
Young, Donald Andrew . . . . . Detroit
Young, Donald C. . . . . Detroit
Young, James P. . . . . Detroit
Young, Lloyd B. . . . . Detroit
Young, Viola M. . . . . Detroit

*Zbudowski, Myron R . . . . . Camp Robinson, Ark.
Zbudowski, A. S. . . . . Detroit
Zemens, Joseph L. Grosse Pointe Woods
Zielinski, Charles J. . . . . Detroit
Zimmerman, Israel J. . . . . Detroit
Zimmerman, R. L. . . . . Detroit
Zinn, George H. . . . . Detroit
Zinterhofer, John . . . . . Detroit
Zinterhofer, Louis . . . . . Detroit
Zlatkin, Louis . . . . . Detroit
Zolliker, Carl R. . . . . Detroit
Zukowski, Sigmind A. . . . . Detroit

## Wexford-Kalkaska-Missaukee Counties

*Albi, R. W. . . St. Johns, Newfoundland
Brooks, G. W. . . . . Tustin
Carrow, J. F. . . . . Marion
Daugherty, R. V. . . . . Cadillac
Gruber, John F. . . . . Cadillac
*Hoagland, F. L. . . . . Porto Rico
Holm, Augustus. . . . . Leroy
Holm, Benton . . . . . Cadillac
Hoverter, J. W. . . . . Evart
Inman, J. C. . . . . Lake City
Laughbaum, T. R. . . . . Lake City
McCall, James H. . . . . Lake City
McManus, Edwin. . . . . Mesick
Masselink, H. J. . . . . McBain
Merritt, C. E. . . . . Manton
Mills, Robert E. . . . . Boon
*Moore, G. P. . . . . Fort Custer
Moore, Sair C. . . . . Cadillac
*Murphy, Michael R. . . . . Carlisle Barracks, Pa.
Purdy, Calvin S. . . . . Buckley
Seltzer, Sol N. . . . . Marion
Showalter, Laurence E. . . . . Cadillac
Smith, Wallace J. . . . . Cadillac
Tornberg, G. C. . . . . Cadillac
Wood, George H. . . . . Reed City

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**CONTACT DERMATITIS**

*(Continued from Page 397)*

sponses. In some cases, plant roots were responsible for dermatitis. Gardening may also lead to contact with commercial fertilizers, insect sprays containing arsenic and pyrethrum. In repair work at home, cement is probably the most important contactant involving hands, arms, face and often the lateral aspect of the legs. Soft and hard rubber, bakelite and other plastics, on the steering wheel and the gear shift of a car, produce characteristic designs of dermatitis on corresponding areas of the hands.

### Hobbies and Sports

Among the hobbies, photography is outstanding for the frequency of contact dermatitis from various chemicals. Handling of books and papers may lead to dermatitis from glue, leather, and fabrics, and from dyes. Inks, especially the rotogravure ink of the Sunday paper, is important. Writing induces contact with hard rubber and other materials of a fountain pen, nickel and rubber in the typewriter, ribbon, carbon paper, ink eradicators. Woodcraft may give rise to contact dermatitis from various types of wood, glues, oils, nickel, and chromium in tools.

In art work, dermatitis from the hair of a paintbrush, from oils, and paints were described.

The mouthpieces of various musical instruments such as flutes, oboes, trumpets, the rosins and chin rest and the wood of a violin appeared as sources of dermatitis. Animal fanciers may develop contact lesions not only from the respective animal, but also from their feed and from insect sprays and all kinds of medicaments.

In the field of sports, leather, leather dyes, rubber, and plastics play an important role. The following agents were mentioned as causes of typical lesions on the hands: Balls of all kinds, boxing gloves, handles of bicycles, bridles, bowling balls, the taping of golf clubs, tennis rackets, and billiard cues.

### Summary

Based on the analysis of 109 replies to questionnaires received, three diagrams are presented showing clinically important sites of contact dermatitis. The factors accounting for typical localizations are discussed.

I wish to express my appreciation for the courtesy of those who coöperated in this study.

# EDITORIAL

## THE GENERAL PRACTITIONER AND TUBERCULOSIS

■ "THE responsibility for finding new cases of tuberculosis rests squarely on the shoulders of the general practitioner, and he is not shirking his responsibility or lying down on the job."

In these words, George A. Sherman, M.D., Director of the Bureau of Tuberculosis Control of the Michigan Department of Health, announces his conviction that the control of tuberculosis is more than a health department job. In an article, "The General Practitioner Finds Tuberculosis," he adds his voice to the many whose close study of this disease problem brings them invariably to the same conclusion; namely, that the last of the struggle against this malady will be carried out in the offices of the general practitioners of medicine. Dr. Sherman is to be congratulated on adding his influence to that program.

In dealing with a disease problem in which we are wholly on the defensive, as is true in tuberculosis, the first principle for finding that disease is to think that disease. We must think tuberculosis! It is hardly necessary to emphasize that the disease, while once primarily a condition to be found in young adults, today is a threat at all ages. It is now a recognized fact that grandfather and grandmother may be a special danger to the second generation.

Not without significance to the general practitioner is the current discussion among the leading scientists in the tuberculosis field regarding the relative values of various diagnostic procedures in the discovery of the disease. Several years ago, J. Arthur Myers, and early this year, Donald B. Armstrong, and many others have announced their caution of "all-out" x-ray reliance. The best of these men agree that the tuberculin test has not been superceded, and that its value as an aid in diagnosis is not to be overlooked. History, physical examination, and sputum analysis with the added precaution of stomach-washing loom vital, as ever, to the discovery of early disease.

Dr. Sherman says, "Routine mass surveys * * * are considered sound practice today." Although his conception as to what constitutes 'sound practice' may not be that of the general profession, surveys of recent literature and of informal discussion in the tuberculosis groups do not seem to bear him out in his own field. 'Sound practice' will hold the x-ray in high regard as one of four steps in the diagnosis of tuberculosis, none of which can reach its full value for the patient unrelated to the others, or without the personal physician. His judgment brings the unrelated findings into focus. Today, the profession might very well beware the mass survey, with whatever instrument just as a profession of a generation ago shied at the mass survey with the stethoscope. Their conservatism then has been shown again and again to have been amply justified. Previously, the stethoscope in the most able hands was not all knowing. Today, the x-ray film is not sufficiently accurate to be trusted—alone—even in the most skilled hands.

If there has been inertia on the part of physicians to engage and coöperate in health programs it has generally been due to a failure in the public health circles to hold the private physician at his proper value. It is axiomatic that no lasting progress can be made in public health, opinion to the contrary notwithstanding, without the general profession. Impatience with the profession generally results in defeat of the public's best interests. Patient and continuous strengthening of the profession is the best public health practice.

MSMS

## THE MEDICAL PROFESSION AND THE WOMEN'S FIELD ARMY IN THE YEAR 1942

■ IN this year of war it is interesting to review and to revalue the relationship between the medical profession and the Women's Field Army of the American Society for the Control of Cancer, Inc.

In the first place, it is well to clarify for the benefit of those not active in cancer control work the status of the Women's Field Army. This organization was started in 1936 by the American Society for the Control of Cancer, Inc., for

the purpose of developing individual participation in cancer education. Certain members of the medical profession have misunderstood the purpose of the Women's Field Army and have generally thought that the function of this group of women was primarily to raise funds. It is true that a $1.00 membership or enlistment fee is charged to cover expenses of printed material, travel and organization work. However, the fund-raising activities in no way compare with the educational activities that are carried out by this group of women which now numbers over 200,000 members.

It must be remembered that each of these women every day of the year in many unrecognized ways is developing an intelligent point of view and is spreading knowledge about cancer. She is telling her friends that cancer can be cured if diagnosed and treated early. This knowledge multiplies as it is handed along from one individual to another. She is encouraging women to seek medical advice at the first symptom or sign that might mean cancer.

Some members of the medical profession have thought of the Women's Field Army as an organization controlled and dominated entirely by club women. This is far from being the actual case. The Women's Field Army is a division of the American Society for the Control of Cancer, Inc., which is controlled by an Executive Board of men made up principally of physicians and including 10 per cent or less of lay individuals. The members of the National Executive Board are selected from among the fifty-four members of the National Board of Directors, geographically distributed throughout the United States, and also more than 90 per cent medical.

The Women's Field Army activities are guided by officers of the American Society for the Control of Cancer, Inc., and by the Executive Council of the Women's Field Army. In each state the activities of the Field Army are controlled by a State Executive Committee, which is ordinarily largely composed of members of the State Cancer Committee of the organized medical profession. The local activities of the Women's Field Army, in turn, are controlled in each city or county by a local Executive Committee composed of the local county Cancer Committees of the organized medical profession, plus such additional lay persons as they desire.

The organization and activities of the Women's Field Army are in fact so closely related to the medical profession that the organization might be said to be the eyes and ears of the local communities so far as cancer activities are concerned. The Women's Field Army can be described as the listening post that reports back to the organized County Cancer Committees regarding the status of the lay public and cancer education.

The personnel of the Field Army is ready to serve the organized medical profession in many ways. Professional ethics do not permit the medical profession to dramatize, either in an organized or individual way, the significance of disease. Lay organizations, molded into a unit of a Field Army take over the function of arousing individual response to cancer education. They create a desire on the part of individuals in a community to know something about cancer, and they indirectly bring the patient or the individual into the doctor's office or into an organized clinic approved by the American College of Surgeons as a result of their educational efforts.

As a result of the activities of the Field Army influential citizens who are interested in cancer education leave large bequests and memorial funds to the local community to support established clinics or to be used in other ways, according to a vote by the local Executive Committee approved by the National Body.

Money raised in this manner does not go to support the national program of cancer education. Only a small amount, 30 per cent of the $1.00 enlistment fee, and of contributions not specifically earmarked for local use, is sent to the National Office to support the tremendous responsibility of educating and organizing the entire nation.

In many states the women of the Field Army coöperate with the organized medical profession in soliciting and winning the interest of the Public Health Departments in instituting cancer control programs and state cancer laws. This type of activity has been entirely guided by the organized medical profession and because of this fact wherever you find a division of cancer control in a State Health Department, the program has been thoroughly tested and approved by the State Medical Society in coöperation with the voluntary efforts of lay individuals.

There is no real conflict between the growth of the official state cancer control programs ad-

ministered by state laws and subsidized by taxation and the educational program of the American Society for the Control of Cancer, Inc. On the contrary each is essential to the other. The need for individual participation of the lay public will always exist. The spread of information about the signs and symptoms of cancer will always be the responsibility of an organization such as the Women's Field Army. The officially paid state worker can never replace the voluntary individual motivated by high ideals and devoting his or her time to active cancer education.

History proves that all great public health measures, such as laws regarding sanitation, food handling, traffic rules and regulations, et cetera, either succeed or fail depending upon the degree of individual responsibility created through educational efforts of the individuals themselves. This is and will remain the key to the program and achievements of the Women's Field Army.

SAMUEL BINKLEY, M.D.,
Medical Director,
American Society for the
Control of Cancer, Inc.

# Communication

## STATE HEADQUARTERS FOR SELECTIVE SERVICE

**Lansing, Michigan**
**March 26, 1942**

**MEMORANDUM (M-218)**

TO: All Local Boards

SUBJECT: Classification of Doctors of Medicine, Dentistry and Veterinary Medicine

REFERENCE: Local Board Release (89), dated January 28, 1942
Memorandum (M-151), dated January 14, 1942.

1. Doctors of medicine, dentistry and veterinary medicine in Michigan may apply for appointment as officers in the armed forces through the recently established Procurement and Assignment Service, 601 Pennsylvania, N. W., Washington, D. C. All physicians who may be subject to military service should be urged to register with the Procurement and Assignment Service.

2. The Procurement and Assignment Service is in a position to make recommendations in reference to the civilian needs of any community for medical personnel, as well as providing information in reference to the proper allocation of medical manpower to meet the requirements of the armed forces.

3. Prior to the classification or reclassification of doctors of medicine, dentistry and veterinary medicine, Local Boards are requested *in each individual case* to forward the name and address of the registrant, through State Headquarters at Lansing, requesting the recommendation of the Procurement and Assignment Service in reference to the status of the registrant concerned. State Headquarters will transmit Local Board requests directly to the Sixth Corps Area Chairman at Chicago.

4. Upon receipt of the recommendation of the Procurement and Assignment Service, Local Boards may proceed with the classification of the registrant, giving due consideration to the advisory recommendation of the Procurement and Assignment Service. It will be understood that the recommendation of the Procurement and Assignment Service is advisory only and does not supersede the classification authority of the Local Board. If a registrant's application for commission is pending, it is recommended that induction be postponed temporarily until action has been taken on his application.

5. The primary consideration in the classification of registrants who are doctors of medicine, dentistry and veterinary science is their most effective allocation to meet the requirements of the armed forces, civilian needs and industrial medicine. Therefore, as previously indicated in Memorandum (M-151), the dependency claims of such registrants merit special consideration, since physically qualified registrants in these professions may obtain a commission in the armed forces which would give them sufficient income, in most instances, to support a wife and small family.

6. Since the Procurement and Assignment Service has been established by Executive Order and will supply the armed forces with their requirements for professional personnel in these categories, the Selective Service System is expected to coöperate with this service. In many instances where members of these professions have not been deferred as necessary men in their communities, it may be necessary for Local Boards to move them toward induction as a means of causing such registrants to register with the Procurement and Assignment Service and apply for commissioned service in the armed forces. Every reasonable effort will be made by this Headquarters and our Local Boards to coöperate with the Procurement and Assignment Service in securing proper allocation of this professional manpower.

E. M. ROSECRANS,
*State Director.*

# Membership Intangibles

THE State Society membership in May, 1935, was 3,391. Today it stands at 4,527. What circumstances caused this extraordinary increase of 1,136 members in a few short years?

First to come to one's mind would be the *tangible* benefits of membership, those corporal values, such as in medical education and economics which have helped to make the Michigan State Medical Society outstanding among the leading medical organizations of the nation, and the personal service rendered by a modern Medical Society in matters associated with every member's practice.

But just as important, if not more so, are the *intangible* benefits of membership. Whence comes the profession's enviable standing and the resulting position of social responsibility and leadership in the community enjoyed by the individual practitioner? Who maintains the present high standards of medicine? These and many other casually accepted benefits—such as the preservation of the physician-patient relationship—are the results of group action.

Members of the Michigan medical profession, scientifically trained to accept only the good, have endorsed the State Society in its professional and educational, economic, and sociologic activities by building its membership to an all-time high.

Henry R Carstens

President, Michigan State Medical Society

President's

Page

# ✶ YOU AND YOUR BUSINESS ✶

## PROCUREMENT AND ASSIGNMENT SERVICE

Procurement and Assignment Service was ordered decentralized, according to P. R. Urmston, M.D., Bay City, Michigan Chairman of the Procurement and Assignment Committee, at the P. and A. S. Conference in Washington, D. C., April 24-25. The work of procurement and assignment of physicians is now the responsibility of every individual state. A representative of the Surgeon General of the Army has been assigned to Michigan with authority to cut red tape and grant commissions direct. Physical examinations will be made within the state and reports received by the applicant within twenty-four hours. Commissions will be granted within two days.

The Procurement and Assignment Committee has processed the names of all practitioners of medicine in Michigan, and reports on individual physicians will receive immediate clearance.

### 5,000 Medical Officers Needed Now

The need for 5,000 medical officers immediately and 15,000 before January 1, 1943, was the prime factor leading to the streamline granting of commissions to eligible doctors of medicine. A full-time office located in Detroit will be followed by the opening of additional offices throughout the state, where necessary.

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## IS THIS COMPULSORY SICKNESS INSURANCE?

The Social Security Board, in its Sixth Annual Report, discusses the advisability of further social gains, with particular emphasis on extension of medical care. Does the Board propose a complete compulsory sickness insurance plan, to cover approximately 115,000,000 persons in the United States, in the following terse paragraph found in this report (page 25)?

> The Board believes that measures to assure adequate medical care to all persons who need it and to protect workers and their families against the cost of medical care are of basic importance to social and national security and that a beginning should be made in this field. This belief has been confirmed in recent months by the fact that a large proportion of the young men who are in the ages when health should be at its best have been found physically unfit to enter the armed forces.

For the facts on rejections of selectees, the illuminating article of Colonel L. G. Rowntree et al. (Jour. A.M.A., April 4, 1942) is recommended to the Social Security Board for reading.

## GUARANTEEING HOSPITAL STAFF POSITIONS

A total of thirty Michigan hospitals have advised the MSMS Medical Preparedness Committee that the hospital staff positions in their institutions, now held by Doctors entering the armed forces of the United States, will be retained upon the physicians' discharge from active military duty.

Since the lists published in the February, March and April JOURNAL, the following replies have been received:

Lansing—Sparrow Hospital—K. P. Hodges, M.D., Secretary of Staff—guaranteed.

Detroit—Woman's Hospital—R. G. Kingswood, M. D., Secretary, Medical Executive Committee—guaranteed.

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## MALPRACTICE AGAINST ARMY-NAVY MEDICAL OFFICERS

Although malpractice suits by persons in military service against members of the medical corps have thus far been rare, nevertheless a medical officer in the armed forces (and a physician acting for a local Selective Service Board) is subject to claims of malpractice. By virtue of his service or function he stands in no different position with respect to answerability to his patient from that of a physician acting solely in a civil capacity.

Where a malpractice claim is pressed against an Army-Navy medical officer or an examining physician for a local draft board for alleged malpractice, the Government provides defense for the physician accused. The doctor has the right to have the case removed to a federal court and to be defended by United States attorney designated by the Department of Justice. However, if a judgment is rendered against such a medical officer, there is no provision in law by which the judgment could be paid by the government.

"Physicians concerned cannot safely discontinue such forms of malpractice insurance protection as they previously have carried," stated the JAMA of September 13, 1941. It is hoped that especially favorable premium rates may be obtainable from insurance companies for policies to protect physicians in the Army and Navy and local draft board physicians against claims for malpractice arising from governmental service.

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## 1942 REVENUE ACT

How much higher will individual income taxes be? Will forced savings be voted? Will there be a general sales tax (Federal)?

Authoritative sources state that the 1942 Revenue Act is a long way from enactment. The proposal may be split into two parts, in order to permit the new and increased excise taxes to be readily adopted to bring in needed revenue; the second part of the bill affecting personal and corporation income, surtaxes, and excess profit taxes will come later, after prolonged hearings.

The sales tax is obtaining considerable support. However, the enactment of this tax will NOT make unnecessary an increase in personal and corporation taxes. It is felt that in due course all income, surtax, and corporation taxes will be greatly increased and that the sales tax will also be applied.

## PROPOSED INCOME TAX DEDUCTION FOR MEDICAL CARE COSTS

The House Committee on Ways and Means, U. S. Congress, is considering a recommendation of the Treasury Department that "a deduction (in federal income taxes) should be allowed for extraordinary medical expenses which are in excess of a specified percentage of a family's net income. The amount allowed under such a deduction should however be limited to some specified maximum amount." By way of example, the Treasury Department suggested that medical expenses totalling less than five per cent of the net income of the taxpayer might be considered as ordinary medical expenses and would not be deductible; a maximum amount of $2,500 to be allowed as a deduction was proposed.

The income tax laws of two states (Idaho and Minnesota) now authorize deductions for expenses of medical care.

## "COMMON SENSE"

There has developed a sense of dishonesty among certain types of patients who never overlook an opportunity for monetary gain at the expense of a reputable physician, with all dire consequences to the latter. To forestall such a possibility it is advisable to do those things that would be recognized in any court of law as substantial, from the standpoint of common sense.

Without doubt, a common source of instigating malpractice litigation is the unwitting habit of making critical remarks about other doctors' work; common decency and fairness should easily curb this habit.—M. J. Hubeny, M.D., in "The Medico-Legal Aspects of Injuries Following the Application of Roentgen Rays."

## TEMPORARY HOSPITALIZATION FOR WAR-INJURED CIVILIANS

Plans of the Office of Civilian Defense provide that in event of civilian injuries from air raids or other enemy action, all voluntary and governmental hospitals of the nation may serve as Casualty Receiving Hospitals, and be reimbursed by the federal government.

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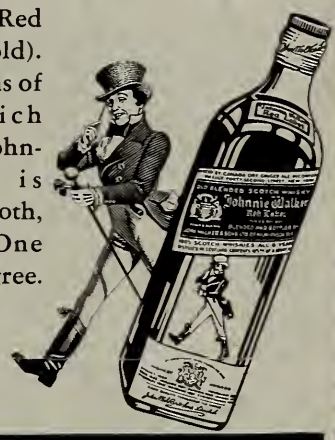

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When it is necessary to evacuate from Casualty Receiving Hospitals, certain hospitals in "safe areas" will be designated as Emergency Base Hospitals for the reception of casualty or other patients.

Medical staffs will be supplemented by physicians commissioned in the U.S.P.H.S. Reserve Corps who will be sent to the area.

Management and control of local hospitals in the emergency program will remain the responsibility of the local or state authorities.

## IN MEMORIAM

**Fred Norton Blanchard** of Detroit was born in the year 1878 and was graduated from the Detroit College of Medicine in 1903. His whole professional life had been lived in Detroit. One of his activities had been to help establish an effective school health service in coöperation with the Department of Health. During the first World War he was in France with Base Hospital No. 60. Doctor Blanchard died in Harper Hospital on March 3, 1942.

**Joshua L. Yeagley** of Waldron was born in the year 1873 and was graduated from the Toledo Medical College in 1901. He had practiced in Waldron for forty-two years. Doctor Yeagley died from injuries sustained from an auto accident on April 12, 1942.

*Died in Military Service*

**Captain Harry Sage Gorelick** of Detroit was born in the year 1906 and was graduated from the University of Michigan Medical School in 1930. He was commissioned a first lieutenant in the Medical Reserve Corps of the U. S. Army March 29, 1934, and promoted to captain, July 5, 1941. Dr. Gorelick was formerly on the staff of the City of Detroit Receiving Hospital. He died on April 10, when a fire destroyed an officers' barracks at Camp Grant, Illinois.

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Leo J. Latz, M.D., and Emil Reiner, C.E., both of Chicago, are the authors of an article in the *American Journal of Obstetrics and Gynecology* entitled "Further Studies on the Sterile and Fertile Periods in Women." Their investigation leads them to refute "the validity of the claims of 'Rhythm' babies," and they conclude that the factual evidence their report educes "confirms our belief that the biologic law of sterility and fertility as originally propounded by Knaus is correct, essentially practical and workable."

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Symptoms such as numbness, tingling, cold and weak extremities are encountered as a result of occlusive vascular disturbances.

The end-artery or arteriole with the narrowed lumen is responsible for much distress in peripheral vascular disease.

THE *Burdick* RHYTHMIC CONSTRICTOR

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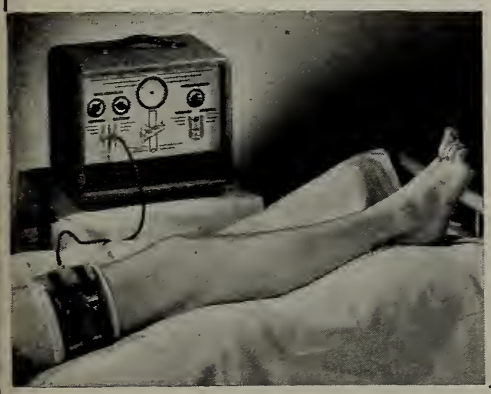

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## HEART DEATHS HIGHEST

Heart disease was again the leading cause of death in Michigan in 1941, taking 15,709 lives or 30 per cent of all deaths in the state during the year. Cancer was the second leading cause, with 6,282 deaths or 12 per cent of the total.

There were no changes among the ten leading causes of death in 1941, each appearing in the same position it held in 1940. Apoplexy was third on the list with 4,633 deaths attributed to it. The other causes and corresponding deaths were: accidents (all forms) 4,448, nephritis 2,850, pneumonia 2,131, tuberculosis 1,723, diabetes 1,382, premature birth 1,354 and arteriosclerosis 905.

## CANCER DEATHS NUMBER 6,300 IN 1941

Cancer caused nearly 6,300 deaths in Michigan last year, approximately 12 per cent of all deaths in the state, according to Michigan Department of Health records. Every eighth death in Michigan in 1941 was due to some form of cancer and one such death occurred in the state every hour and twenty-four minutes.

During April, designated by Congress as Cancer Control Month, the Department sent out a special series of news releases to weekly papers of the state. The releases covered the usual points, the seriousness of cancer as a cause of death and encouraging possibility of cure if prompt medical attention is secured at the appearance of any signs of the disease. The common symptoms were emphasized, as were the dangers of delay and self-treatment and the necessity for good medical care.

## IMMUNIZATION PROGRAM

Michigan's emergency immunization campaign to protect children over nine months and under ten years of age against diphtheria and smallpox is well under way. By April 9, a month after the program was begun in Wayne county, the medical societies of twenty-four other counties had completed plans for large scale immunizations.

The State Health Department is sending 200,000 letters to parents in these counties urging them to take their unprotected children to their physicians immediately. Report forms for the program are being sent by the Department to physicians who request them as rapidly as they can be printed.

Some difficulty is being met by the Department laboratories in obtaining glass vials, rubber stoppers and bulbs in sufficient quantities to meet the demands of physicians giving the immunizations, but every effort is being made to minimize delay in supplying the biologics.

In submitting requests to distributing centers for toxoid and vaccine, physicians are asked to order only enough to meet actual needs. It is better to place several small orders than a single large one, say laboratory authorities. This is particularly true for smallpox vaccine because of its short period of potency.

## INTENSIVE NURSING TRAINING

During March, 172 nurses representing 58 Michigan counties attended the institutes or workshops at Clear Lake Camp near Battle Creek for intensive training as instructors in Red Cross home nursing classes.

The workshops were sponsored jointly by the W. K. Kellogg Foundation, the Michigan Department of Health, the American Red Cross and the Michigan State Nurses Association. Nurses attended the workshops as guests of the Kellogg Foundation. Their meals and lodging were furnished free.

This method of providing teacher training for the nurses proved so successful that the Kellogg Foundation offered the facilities of the camp to nurses from the neighboring states of Ohio, Illinois and Indiana.

## INDUSTRIAL HEALTH ACTIVITIES

Wartime demands on Michigan's smaller industries have stepped up efforts to protect the health of factory workers. Department of Health industrial hygiene physicians and engineers are spending most of their time answering requests for their services in solving health problems in the factories employing 800 to 1,000 men.

Most of the requests for these services come from plant management, but a large number are received from labor organizations. Studies of working conditions are made in cooperation with plant physicians. Follow-up visits to the plants by the engineers have shown that 85 to 90 per cent of their recommended improvements have been completed.

Harmful dusts, vapors, fumes and gases are the most common health hazards in smaller plants just as they are in larger ones. Crowded factory conditions resulting from the rush of war production make removal of these hazards more important than ever.

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# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

**100 Per Cent Club for 1942**

| *County Society* | *Secretary* |
|---|---|
| Branch | James Bailey, M.D. |
| Cass | John K. Hickman, M.D. |
| Chippewa-Mackinac | L. J. Hakala, M.D. |
| Dickinson-Iron | E. B. Andersen, M.D. |
| Huron | Roy R. Gettel, M.D. |
| Ingham | R. J. Himmelberger, M.D. |
| Ionia-Montcalm | John J. McCann, M.D. |
| Kalamazoo | Hazel R. Prentice, M.D. |
| Luce | Sidney Franklin, M.D. |
| Medical Society of North Central Counties | C. G. Clippert, M.D. |
| Menominee | Wm. S. Jones, M.D. |
| Muskegon | Thomas J. Kane, M.D. |
| Oceana | V. W. Jensen, M.D. |
| Ontonagon | W. F. Strong, M.D. |
| Sanilac | E. W. Blanchard, M.D. |
| Shiawassee | R. J. Brown, M.D. |
| St. Clair | J. H. Burley, M.D. |
| Tuscola | F. J. Gugino, M.D. |
| Wexford-Kalkaska | B. A. Holm, M.D. |

As of April 1, 1942, the above nineteen county medical societies had reported 1942 dues for one hundred per cent of their membership. Congratulations are in order, especially to the hard-working secretaries whose efficient efforts made this good record possible. Most of the rest of the 36 county societies have but a very few who have not paid 1942 dues which keeps them from the rolls of the "100 Per Cent Club for 1942."

*Wanted.*—Physician needed at Woodland, Michigan (Barry County). Write H. Classic, Woodland, for details.

* * *

*S. E. Gould, M.D.,* Detroit, has been honored with the degree of Doctor of Science (in Pathology) by the University of Michigan.

* * *

*The Kent County Medical Society Bulletin,* April issue, contains a list of current medical publications available locally. The list totals more than 100 journals.

* * *

*The next examination* of the Michigan State Board of Examiners in the Basic Sciences will be held on June 12 and 13, 1942. Inquiries may be addressed to the Board, 101 North Walnut Street, Lansing, Michigan.

* * *

*The Annual Meeting of the Michigan Allergy Society* was held in Detroit April 16. The following officers were elected for the coming year: President, S. W. Insley, M.D.; Vice President, Samuel J. Levin, M.D.; Secretary-Treasurer, Barney A. Credille, M.D., of Flint.

*The Annual Hickey Memorial Lecture* of the Wayne County Medical Society was presented by Eugene P. Prendergast, M. D., of Philadelphia, April 6. The presentation was concerned with the roentgen manifestations of the healthy chest and the modifying influences by some of the industrial dusts, including silica.

* * *

*Price Ceilings*—Blanket price ceilings on goods, rent, and most service charges (to be set at their high points in March) will soon be made by the government. Everything will be covered except professional fees, raw farm crops and processed crops which do not reflect 110% parity back to farmers, and auction sales.

* * *

*"Electrocardiography"* in a full-time, intensive two weeks' postgraduate course is again being offered by the Michael Reese Hospital, Chicago, under the direction of Louis N. Katz, M.D., Director of Cardiovascular Research. The course is designed for the general practitioner and will include practice with several machines as well as sessions of interpretation.

* * *

*The Genesee County Medical Society Bulletin* has been running a series of articles entitled "Early Practitioners in Genesee County." In addition, H. E. Randall, M.D., Past-President of the Michigan State Medical Society, has been writing some illuminating articles on the various branches of the healing arts. His essay entitled "Nurses as seen by Dickens" was a feature of the April issue.

* * *

*The Wayne County Medical Society* has inaugurated first-aid classes for physicians. Lectures have been presented by Grover C. Penberthy, M.D., A. H. Whittaker, M.D., Frank P. McCormick, M.D., and Ralph H. Pino, M.D. Water safety is being explained by A. S. Moreau of the American Red Cross. The classes are under the Directorship of Joseph P. Molnar, M.D., and Charles M. Burgess, M.D., and have a total enrollment of 55.

* * *

*Blood and Plasma Banks.*—Hospitals in communities exposed to war hazards may receive assistance in the establishment of a blood and plasma bank through funds available to the USPHS. Financial and technical assistance will be provided to 300 hospitals of 200 or more beds approved by the ACS and the AMA. These hospitals will agree to maintain required technical standards and to accumulate a surplus of liquids or frozen plasma amounting to one unit per bed within three months.

**State Board Examinations**

Due to the War Emergency, the Michigan State Board of Registration in Medicine is advancing the dates of the June examination to Wednesday, Thursday, and Friday, June 3, 4, and 5, 1942.

The examination will be given concurrently at the University of Michigan, Ann Arbor, and Wayne University, Detroit. The fee for the complete examination is $25.00. Applications and fees must be filed in the office of the Michigan State Board of Registration in Medicine, 202-3-4 Hollister Building, Lansing, thirty days prior to the examination date.

*R. H. Lyons, M.D., Ann Arbor, and Harry Balberor, M.D., Eloise,* are co-authors of "Febrile Reactions Accompanying the Readministration of Sulfathiazole" which appeared in the March 21, 1942, issue of *The Journal, American Medical Association.*

* * *

*Matthew R. Kinde, M.D.,* Field Director of the Kellogg Foundation and Chairman of the MSMS Tuberculosis Control Committee, is the author of "Health at the Crossroads" which was published in the January, 1942, issue of *Hygiea.*

* * *

*New County Medical Society Secretaries* have been appointed to replace those who have left for military service or other duties, as follows

Chippewa-Mackinac—Stanley H. Vegors, M.D., Sault Ste. Marie, replaces L. J. Hakala, M.D., now with the U. S. Public Health Service.

Oakland—Ferdinand Gaensbauer, M.D., Pontiac, replaces Donald Smith, M.D., now with the U. S. Navy.

Ontonagon—W. F. Strong, M.D., Ontonagon, replaces R. J. Shale, M.D., who has accepted an appointment in Florida.

Tuscola—D. B. Ruskin, M.D., Caro, replaces F. J. Gugino, M.D., now with the U. S. Navy.

* * *

*Official Call.*—The Ninety-third Annual Session of the American Medical Association will be held in Atlantic City, New Jersey, June 8 to 12, 1942. The AMA House of Delegates will convene on Monday, June 8; the Scientific Assembly will open the evening of June 9.

Michigan Delegates to the AMA House of Delegates are Henry A. Luce, M.D., Detroit; T. K. Gruber, M.D., Eloise; Claude R. Keyport, M.D., Grayling; L. G. Christian, M.D., Lansing; Frank E. Reeder, M.D., Flint; J. P. Pratt, M.D., Detroit, Ob-Gyn Section; and B. R. Shurly, M.D., Detroit, E.N.T. Section.

Hotel reservations should be obtained immediately. Reservation requests should be addressed to Dr. V. Earl Johnson, Chairman Hotel Committee, 16 Central Pier, Atlantic City, New Jersey.

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*The Oakland County Medical Society Bulletin* of April prints the following interesting paragraph: "We would like to call attention to a letter that came into our hands recently:

'We could list many complimentary letters from osteopathic physicians who are using our products.' . . . P.S.2 "When 25,000 to 40,000 medical doctors are withdrawn from active practice, your office calls will increase. You will need quality products at economical prices to help care for these patients in the coming emergency.—Vitamin Yeast Company, Paw Paw, Michigan."

* * *

*The Michigan Pathological Society* met on April 11, at St. Mary's Hospital, Grand Rapids. The subject of the program was "Rare, Interesting and Unusual Granulomas." Fifteen were in attendance. Cases were presented by the following: Mary Ruth Oldt, M.D. (case presented by J. A. Kasper, M.D.); E. W. Lange, M.D.; G. Steiner, M.D.; John King, M.D., and D. C. Beaver, M.D.; C. A. Payne, M.D., and H. Prentice, M.D.

The next meeting will be held in Detroit at Receiving Hospital on May 23. All physicians who are interested in Pathology are invited to attend.

* * *

*Beware:* "I would like to enter into an arrangement with you for eye refraction work, requiring your full-time service away from your office. Refraction experience not necessary. Attractive opportunity and fine remuneration. Office space is provided. This is a permanent arrangement. The proposition is in Michigan."

Postal cards containing the above message are periodically received by members of the medical profession of Michigan.

The message itself speaks volumes for the ethics of the optical company which circularizes the medical profession with such a proposition, hardly in the interests of the public.

For further information, contact your Better Business Bureau, or write the MSMS Executive Office, 2020 Olds Tower, Lansing.

* * *

*Opportunity* for a physician at Marinesco, Michigan. For further information write Bernard Gunderman, Boniface Lumber Company, Marinesco, Mich.

* * *

*Mr. Malcolm Galbraith,* vice president and director of sales of the Upjohn Company, Kalamazoo, died April 10, 1942, in Kansas City. Mr. Galbraith was born in Bowmanville, Ontario, Canada, October 23, 1876. He received his bachelor of pharmacy degree at Ontario College of Pharmacy in 1898, entering the drug business in Ontario the same year. He later became a naturalized citizen of the United States. In 1909 he left the H. K. Mulford Company of Philadelphia to join the Upjohn Company. In October, 1929,



*Say you saw it in the Journal of the Michigan State Medical Society*

he was elected to the board of directors and named director of sales. He was made vice president of the company in May, 1936.

* * *

*A. C. Furstenberg, M.D.,* Dean of the University of Michigan Medical School, recently reported to the Medical Preparedness Committee of the Michigan State Medical Society that 128 medical students were enrolled in the R.O.T.C., that 45 junior and senior medical students have applied for commissions in the Medical Administrative Corps, U. S. Army.

Dean Furstenberg also reported that ten members of the U of M Medical School teaching staff hold commissions in the Medical Reserve and fourteen have applied for commissions. Four residents on the University Hospital staff hold commissions; and 2 have applied for them. Seven assistant residents have applied for commissions. Commissions are held by six interns while applications have been made by eight interns.

* * *

*Past-Presidents' Night* was celebrated by the Bay County Medical Society April 8, 1942, with a dinner honoring the twenty-four past-presidents of the organization, at the Wenona Hotel.

C. H. Baker, M.D., a Past-President of the Michigan State Medical Society, who served as President of the Bay County Medical Society in 1887, was the dean of the group, which included Doctors Wm. Kerr, V. L. Tupper, W. R. Ballard, R. C. Perkins, G. W. Moore, J. C. Grosjean, R. E. Scrafford, G. M. McDonell, A. J. Zaremba, E. C. Warren, P. R. Urmston, V. H. Dumond, C. W. Ash, M. R. Slattery, E. S. Huckins, J. H. McEwan, S. L. Ballard, M. C. Miller, A. D. Allen, C. L. Hess, L. Fernald Foster, R. H. Criswell and R. N. Sherman. A gold key was awarded to each Past-President by the Society.

* * *

*Michigan Medical Service.*—Some interesting facts from the records of Michigan Medical Service as of April 15, 1942:

During the year 1941, services amounting to $1,233,359.94 were received by 44,956 subscriber-patients from 3,711 doctors.

Physicians in every county in the state have had patients who were subscribers. As an example of the distribution of patients throughout the state, 326 patients were treated by doctors in Chippewa County, 153 patients in Delta County.

Since the inauguration of Michigan Medical Service, payments to doctors for services will be in excess of $1,500,000.00.

A total of 3,327 doctors of medicine are registered as participating.

The largest sum of payments in the year 1941 received by one physician was $8,648.90 (for 131 patients).

The largest number of patients in the year 1941 served by one physician was 575.


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*The 1942 Annual Meeting* of the Michigan State Medical Society will be held in Grand Rapids, September 23, 24, 25, 1942. A list of speakers on the Scientific Program, consisting of some fifty outstanding clinicians from all parts of the United States and Canada, will be published in an early issue of The Journal.

The scientific and technical exhibit of 120 spaces will be the largest educational display which the Michigan State Medical Society has sponsored in its 77 years of existence.

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**Philip Morris & Company, New York, New York**
**Picker X-Ray Corporation, New York, New York**
**Professional Management, Battle Creek, Michigan**
**Randolph Surgical Supply Company, Detroit, Michigan.**

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or service.

* * *

*Recent talks* by officers, committeemen and members of the Michigan State Medical Society:

*L. Fernald Foster, M.D.,* Bay City, Secretary of the Michigan State Medical Society, made the following appearances: Barry County and Ionia County at Lake Odessa, February 12, 1942; Clinton County at St. Johns, April 13; Oceana County at Hart on April 21; and Mason County at Ludington on April 21.

*A. H. Miller, M.D.,* Gladstone, Councilor of the 12th District, MSMS, and members of the Public Relations Committee, addressed the Luce County Medical Society on April 7.

*W. H. Huron, M.D.,* Iron Mountain, Councilor of the 13th District, MSMS, and D. R. Smith, M.D., Iron Mountain, member of the MSMS Public Relations Committee, addressed the Houghton-Baraga-Keweenaw County Medical Society on April 7.

*Oliver W. Lohr, M.D.,* Saginaw, presented an illustrated talk on "Cancer Control" at the meeting of the Woman's Study Club of Freeland, Michigan, on April 21.

*E. S. Gurdjian, M.D.,* addressed the medical officers of Fort Custer on March 18 on the "Di-

agnosis and Treatment of Intra-Cranial Hemorrhage Resulting from Trauma."

*Wm. J. Burns,* Lansing, Executive Secretary, MSMS, addressed the Flint Lions Club on April 9 on "What the Medical Society Means to Your Community."

*H. S. Collisi, M.D.,* Grand Rapids, Chairman of the MSMS Public Relations Committee, spoke to the Manistee County Medical Society at Manistee on March 23 and to the Ionia-Montcalm County Medical Society at Greenville on April 14.

*Fred Reed, M.D.,* Three Rivers, member of the Public Relations Committee, appeared before the Van Buren County Medical Society on April 9; and before the Berrien County Medical Society in Benton Harbor on April 16.

*A. W. Strom, M.D.,* Hillsdale, member of the Public Relations Committee, appeared before the Ingham County Medical Society in Lansing on March 17 and before the Genesee County Medical Society in Flint on March 24.

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## THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

YOUR PERSONALITY. Introvert or Extravert? By Virginia Case. New York: The MacMillan Company, 1941. Price: $2.50.

This volume is based upon the psychological types of Jung of introvert and extravert. It was written for the layman that he may classify himself and his friends. The response of these two types to social relations is also emphasized. One hopeful chapter is on developing ambiversion. It is interestingly written.

A PRIMER ON THE PREVENTION OF DEFORMITY OF CHILDHOOD. By Richard Beverly Raney, B.A., M.D., Associate in Orthopædic Surgery, Duke University School of Medicine, Durham, N. C.; Attending Orthopædic Surgeon, Watts Hospital, Durham, N. C. In Collaboration with Alfred Rives Shands, Jr., B.A., M.D., Medical Director, Alfred I. du Pont Institute of The Nemours Foundation, Wilmington, Delaware; Visiting Professor of Orthopædic Surgery, University of Pennsylvania School of Medicine, Philadelphia, Pa. Illustrated by Jack Wilson. Elyria, Ohio: National Society for Crippled Children, Inc., 1941. Price: $1.00.

This monograph discusses the common causes and prevention of deformities in children. The problem is approached both by forestalling the causative affection or by forestalling the tissue changes which the affection tends to produce. It is simply and practically written and should, if widely read, aid in the prevention of loss of function to many unfortunate children.

NEUROANATOMY. By Fred A. Mettler, A.B., M.D., Ph.D., Professor of Anatomy, University of Georgia School of Medicine, Augusta, Georgia. With 337 illustrations including 30 in color. St. Louis: The C. V. Mosby Company, 1942. Price: $7.50.

Mettler has taken a hopelessly confused subject and by means of excellent diagrams and drawings has clarified much of the confusion. The refer-


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MEDICINE—Two Weeks Intensive Course will be offered starting June 1 and October 5. Two Weeks Course in Gastro-Enterology will be offered starting June 15 and October 19. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3.

FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting June 29 and September 21. Informal course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting June 15 and October 19. One Month Personal Course starting August 3. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting October 5. Three Weeks course starting August 10. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28. Five Weeks Course in Refraction Methods starting October 19. Informal Course every week.

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ences are unusually well selected and remarkably inclusive. The typography is excellent. Two-color diagrams aid greatly in making the material understandable. Recommended to all interested physicians.

THE BLOOD BANK AND THE TECHNIQUE AND THERAPEUTICS OF TRANSFUSIONS. By Robert A. Kilduffe, A.B., A.M., M.D., F.A.S.C.P., Director, Laboratories, Atlantic City Hospital; City Bacteriologist, Atlantic City; Serologist, Municipal Hospital for Contagious Diseases, Atlantic City; Pathologist, Atlantic County Hospital for Tuberculous Diseases; Serologist, Betty Bacharach Home for Crippled Children; Serologist, Jewish Seaside Home, Atlantic City, etc.; Formerly, Major, Medical Corps, United States Army; and Michael DeBakey, B.S., M.D., M.S., F.A.C.S., Assistant Professor of Surgery School of Medicine, Tulane University of Louisiana; Visiting Surgeon, Charity Hospital, Touro Infirmary, and Mercy Hospital, New Orleans; Associate in Surgery, The Ochsner Clinic, New Orleans. With two hundred fourteen illustrations and one color plate. St. Louis: The C. V. Mosby Company, 1942. Price: $7.50.

The authors review various phases of blood transfusions and the major variations and modifications in methods and techniques. From this review and their own experience they offer their evaluation. The references are very complete and well classified. It is recommended especially to the surgeon. The typography is excellent.

ENCEPHALITIS. A Clinical Study. By Josephine B. Neal, A.B., M.D., Sc.D., F.A.C.P., Associate Director, Bureau of Laboratories, Department of Health, New York; Clinical Professor of Neurology, College of Physicians and Surgeons, Columbia University. Collaborators: Lauretta Bender, M.A., M.D.; Helen Harrington, M.A., M.D.; Ralph S. Muckenfuss, B.S., M.D.; Tracy J. Putnam, A.B., M.D.; Albert A. Rosner, A.B., M.D.; Lewis D. Stevenson, A.B., M.D. Foreword by Hubert S. Howe, A.M., M.D. New York: Grune & Stratton, 1942. Price: $6.75.

Because of the fear that the dietary deficiencies and privations of the present war may well furnish the soil for another epidemic of encephalitis this monograph is of especial interest. The author has had under her direction over seven hundred patients afflicted with this disease and in this volume she gives the benefit of her observations and study. It is quite readable and practical and is especially recommended to the pediatrician and health official.

METHODS OF TREATMENT IN POSTENCEPHALITIS PARKINSONISM. By Henry D. von Witzleben, Elgin State Hospital, Elgin, Illinois. Preface by Theodore J. C. von Storch, Associate Professor of Neurology, Albany Medical College; Attending Neurologist, Albany Hospital, Albany, New York. New York: Grune & Stratton, 1942. Price: $2.75.

This monograph is a comprehensive review of the numerous therapies that have been recommended with a brief evaluation of each. In the case of the more effective treatment a practical description has been given. The author dwells at length upon the Bulgarian root treatment combined with physiotherapeutic measures which has given excellent results in his hands.

THE MANUAL OF MALADIES INFLUENCED BY OXALIC ACID POISONING. Viz. Industrial Myositis Fibrosa, Occupational Schizophrenia, and Experimental Wassermann and Kahn Tests. By Abel C. Anthony, B.S., M.D. Chicago: Consolidated Printing and Publishing Company, 1941. Price: $2.00.

This independent observer presents in great detail, with many photostatic copies of reports, several cases of myositis fibrosa and schizophrenia from which he deduces chronic oxalic acid poisoning as the causative factor. He also indi-

cates the possibility of sodium oxalate as an exciting cause of cataract of the crystaline lens.

ROENTGEN TREATMENT OF INFECTIONS. By James F. Kelly, M.D., F.A.C.R., Professor and Director of the Department of Radiology, Creighton University School of Medicine; Attending Radiologist, Creighton Memorial St. Joseph's Hospital, St. Catherine's Hospital and Douglas County Hospital, Omaha, and Mercy Hospital, Council Bluffs, Iowa. With the Collaboration of D. Arnold Dowell, M.D., Assistant Professor of Radiology, Creighton University School of Medicine; Assistant Attending Radiologist, Creighton Memorial St. Joseph's Hospital, St. Catherine's Hospital and Douglas County Hospital, Omaha, and Mercy Hospital, Council Bluffs, Iowa. Chicago: The Year Book Publishers, Inc., 1942. Price $6.00.

This report discusses the use of x-ray treatment in that third great field in which Roentgen therapy is effective; that is, treatment of infections. Most of the material is devoted to consideration of gas bacillus infection and peritonitis, although consideration is given to pneumonia and other types of infections. It is well written and the opinions are substantiated by numerous case reports and a review of the literature. The technique and the coördination of this therapy with sulfonamide drugs is also discussed. The use of small-size type makes it difficult to use this book except as a reference book. It is recommended to the surgeon and the roentgenologist.

DISEASES OF METABOLISM. Edited by Garfield G. Duncan, M.D., Chief of Medical Service "B," Pennsylvania Hospital; Associate Professor of Medicine, Jefferson Memorial College; Philadelphia, Pennsylvania. Philadelphia and London: W. B. Saunders Company, 1942. Price: $12.00.

In a monumental work Duncan, together with a number of the well-known authorities, aims to provide the physician with a practical basis for understanding the diagnosis and treatment of the various metabolic orders. The fundamentals are reviewed and are interpreted in the light of recent investigative work. It is unusually practical for such an inclusive volume and is amply and well illustrated. It is recommended to any general practitioner especially interested in internal medicine.

NASAL SINUSES. An Anatomic and Clinical Consideration. By O. E. Van Alyea, M.D., Assistant Professor, Department of Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago. A William Wood Book. Baltimore: The Williams and Wilkins Company, 1942. Price: $6.50.

In 262 pages Van Alyea reviews the sinuses and their problems individually and collectively from the standpoint of the practicing rhinologist. Most of the rarities are omitted in order to simplify and make more practical the treatise. Treatment is ably considered. Many diagrams and pictures including colored plates aid in the simplified handling of the subject. It is recommended to all rhinologists.

DIABETES MELLITUS. By Zolton T. Wirtschafter, M.D., Clinician in Charge, Clinic for Diabetes, Department of Medicine, Mount Sinai Hospital, Cleveland; Visiting Physician, Department of Medicine, Cleveland City Hospital; Clinical Instructor in Medicine, School of Medicine, Western Reserve University, Cleveland; and Morton Korenberg, M.D., Former Fellow, May Institute of Medical Research, The Jewish Hosital, Cincinnati; Medical Resident, Jewish General Hospital, Montreal. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1942. Price: $2.50.

This monograph summarizes the fundamental principles involving the metabolism of carbohydrates, proteins, fats, minerals, vitamins, endo-

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The films were made at the Nutrition Clinic of the University of Cincinnati at the Hillman Hospital, Birmingham, Alabama, where studies were initiated in 1935, under the joint auspices of the Department of Internal Medicine of the University of Cincinnati and the University Hospitals of Cleveland. Subsequently, these investigations became a coöperative project between the Departments of Medicine of the University of Cincinnati and the University of Alabama, and the Department of Preventive Medicine and Public Health of the University of Texas.

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According to a survey made by Joseph N. Burroughs of Oakland, Cal., the birth of children to Rotarians has decreased rapidly since the days of our grandparents. "Present Rotarians," he says, "have an average of 1.71 children, compared with 4.74 for their fathers, and 5.68 for their grandfathers."

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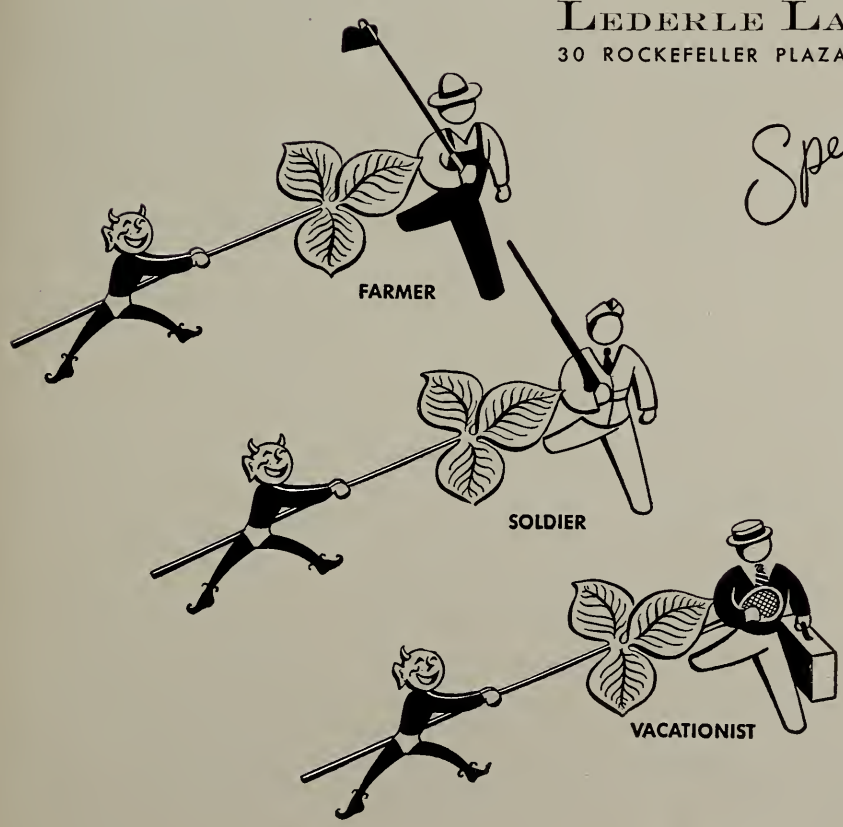

# ✶ HALF A CENTURY AGO ✶

## REMARKS ON THE NATURE AND TREATMENT OF TUBERCULOSIS*

E. L. SHURLY, M.D.
Detroit, Michigan

Mr. Chairman, Ladies and Gentlemen: I regret very much that I have not a written paper for this occasion, as I intended to have done. I shall therefore have to ask your indulgence for the deranged manner in which the subject will be presented.

As I understand the topic I am expected to speak of, it is "The Nature and Treatment of Pulmonary Tuberculosis." Of course, such a subject is of too wide a range, and will take up too much of your time for this occasion, and I shall therefore condense very much what I want to say, leaving out almost entirely any remarks upon the pathology, which is very important and interesting.

Allow me to say first, that I think a great deal of confusion arising at the present time over the subject of tuberculosis comes from lack of recognition of the several different states of the disease met with. There is no doubt but that it will be a long time before all the problems connected with the subjcet can be solved, and that many theories will have to be evolved. We are in the habit of sneering a little bit (if we be practical people), at the theories. After all, it is theory which must lead to the practical solution of all such questions.

Now, the prevalent theory is the bacillary one, that is, that the bacillus tuberculosis is the cause of all these several different states known as tubercular disease. We heard this morning a very excellent paper on Tuberculosis of the Joints, by Prof. Nancrede, a very philosophical and instructive paper; and you will remember that the author spoke of the bacillary action in the production of tuberculosis of the joints, although he did not insist upon it as inevitable. There are other surgeons, who believe that the bacillus tuberculosis has nothing whatever to do with such diseases of the joints. There are still others who do not believe that many of these cases are tuberculosis. Of late years, several bacteriologists have discovered differences in the form and behavior of these bacilli, in their morphology, and I think the present tendency of opinion is towards the view that there are really several kinds of tubercle bacilli. In a very able paper published in the *Revue de Medécine* last October, Dr. J. Courmont, who spent a great deal of time in the investigation, shows that he had isolated three or four different families of tubercle bacilli. Now, is it not possible that all of these different families or varieties of bacilli may have different physiological characteristics, so to speak. While the morphology may not differ one from the other very much, physiology or life of the microbe may.

Then, again, there springs up, in an etiological sense, the great question of the ferments accompanying them. The universal decision that tubercular affections are due to operations of bacilli is based largely upon elaborate and convincing experiments, which are about as follows: The microbe is cultivated in a certain organic medium, then transferred from that to an animal; in the animal in turn is developed a tuberculosis, which again can be transmitted by inoculation to another animal, and so on; the disease in each having the same pathological feature. Now while this seems so plain, we lose sight of the fact which the chemist tells us, that there is present a ferment. What is the agency of the ferment? Recently Prof. Tamman has brought forward some views which are quite new and seem well proven, viz.: that there are in many organic materials certain unformed ferments, which are in given instances, as it were, in a state of equilibrium, one with the other, that the least thing may disturb this equilibrium, and cause the formation of active products. Even a little acid added to one, or a little water to another, will materially set the action going or

*Presented at the Twenty-seventh Annual Meeting of the Michigan State Medical Society, Flint, May, 1892.

change the result. This is a very important point to consider in connection with inoculating experiments, so that when we come to think of transferring this culture or that to an animal, we do not know how much or little of this ferment we transfer also. I do not believe anybody can stand up and with absolute certainty say that he has transferred nothing but the bacillus. He must have transferred with the microbe some unformed or active ferment, either the product of the bacillus, or extraneous to its life.

And therefore we do not know how much or little the disease process depends upon the ferment which is transferred with the microbe or the microbe itself. Hence, I believe in the present state of our knowledge it is unsettled whether the microbe, or bacillus, is the only cause of the diseased condition generally classed as tuberculosis. I also believe, and I think the drift of opinion is in this direction, that there are distinct clinical and pathological differences in these cases. For instance, I do not think, from a clinical standpoint, that so-called tuberculous joints, so-called tubercular pulmonary disease, leprosy, lupus, and tuberculosis of the peritoneum are identical diseases, I do not believe they are one and the same disease, although they may be closely related in some particulars. That brings us, then, to the practical consideration of the classification of such diseases. Every practitioner knows that there are certain forms or cases of disease, which he is unable to classify exactly by physical signs or by clinical history; and that there are certain differences clinically, no matter what identity laboratory examination may show regarding them. Some of these variations may be accounted for partly by the individual tendency to peculiarities, individual idiosyncrasies, but such consideration is not sufficient to account for the regular course of special cases. For instance, we have a case where there is no haemoptysis, where the cough comes on gradually but is a first symptom, while pyrexia and adynamia come on later and progressively, and after a while expectoration, etc. Upon physical examination of the chest, we find that there is gradual consolidation taking place in the upper part of one lung, and perhaps some lesion in the other lung, all of which progresses, the patient dies, and if an autopsy is made, there will be shown the ordinary morbid anatomy of a case of pulmonary tuberculosis. The course may cover a period of several months, a year or more, yet another form will cover a period of several years. There is still another form—the mechanical—such as miners and grinders are afflicted with, where a great many years are consumed in the course of the disease, and again another very decided form, where the course is very rapid but differing from acute miliary tuberculosis in this respect, that the lesion initially, and all the time, is confined to the lung; after a little time, the whole pulmonary tissue seems to liquefy. Such cases are typical. You will all recognize them. We meet with them frequently. But they are not one and the same thing, and moreover, it does not change the result whether the family history be bad or good always, but if the domestic history has been good or bad it may modify the course of the disease. These cases, then, are so frequently typical that we must recognize them at least as varieties of pulmonary disease; in all of these examples mentioned, the lungs have been the seat of the principal lesion, therefore, they must be cases of phthisis. Now, we believe that all of such cases of so-called phthisis pulmonalis are essentially inflammatory; that the tubercular process is a secondary one; that the majority are ordinary catarrhal pneumonias, and whatever of tuberculosis comes, is secondary. This view, however, does not militate against the prevalent theory of the bacillary origin of tuberculosis or phthisis pulmonalis, inasmuch as it is said by everyone, that there must be a nidus for the germs to grow upon. Why they do not always occur and develop in all cases of catarrhal inflammation of the air passages is a mystery. However, we know as a fact they do not. Allow me for a moment by way of diversion to call your attention to laryngeal phthisis, one of the most horrible diseases that can affect the human being. This disease, as you know, is very obstinate. It appears in two general forms, and has peculiar features. There are very few cases of laryngeal phthisis which are secondary to pulmonary tuberculosis. It is often coincident with pulmonary disease, it is true, but it is not often secondary. Yet what a large number of cases of pulmonary phthisis occur without any laryngeal complication whatever, without laryngeal phthisis? Is it not strange?

In chronic laryngitis, even with erosion, no pulmonary phthisis, no tuberculosis necessarily follows. Why should this be, if the bacilli are

constantly traveling this tract, and only waiting for a little opening on good ground? Hence there must be other etiological factors to be taken into consideration in any description of the nature of this disease, called pulmonary phthisis. To sum up, I should be inclined to think that the nature of pulmonary tuberculosis, or pulmonary phthisis, was essentially inflammatory in the beginning, whatever subsequently may follow. This view does not seem unreasonable in the light of clinical history, but I admit it may seem unreasonable in the light of laboratory experiments as conducted at the present day. Deductions from these, however, are undergoing great change. If it be true that common phthisis pulmonalis be an inflammatory affection, it gives us some encouragement toward endeavors to mitigate its inevitable course and result. On the other hand, if it be always specific, dependent upon the invasion and operation of bacilli alone, then there is no hope. Regarding treatment, which has been generally unsatisfactory, we find many difficulties.

At the outset, in almost all cases, one of the most troublesome symptoms we meet with is anorexia, which precludes the establishment of any sort of nutrition for the benefit of the patient, and which constitutes one great drawback to all treatment. Perhaps I am a little ahead of my story, for I ought to specify that we have three classes of cases to deal with: acute, subacute, and chronic. That is, excluding what is called miliary or general tuberculosis.

But anorexia is common to all, and one of the first difficulties to be overcome and thought of. Those of us who have had large experience with these diseases, become very much discouraged in attempting to keep up the nutrition of the patient on account of this symptom, especially if we are obliged also to administer by the stomach all sorts of medicines, oils, etc. But this has been the ordinary mode of treatment, the applications of medicines in the usual way, by the stomach. And we know how very few patients will tolerate it for any great length of time without great increase of anorexia. This is especially true of the cough balsams and syrups and oils. Therefore, it seems very desirable to adopt any method of medication which may be useful other than stomachal. Now, we have two things before us in this direction. One is climatic treatment, and the other is treatment by means of inhalation or hypodermic medication, or both. Climatic treatment is so efficacious and well known that I need not speak of it here. I would remind you, however, as a proof that the bacillus is not the only cause of the disease in question, that this microbe will operate just as well in Colorado and California as in Michigan, notwithstanding the claim of enthusiasts that the atmosphere of the former states is aseptic, and, if not indigenous there, they are taken there, and probably flourish, since cases of phthisis pulmonalis or tuberculosis originate there and run the same course as in Michigan. But outside of this, we do know that a favorable climate is one of the most useful factors in treatment, for, by putting the patient into position to get plenty of fresh air (oxygen) as necessary as other nutrition; by putting the patient in the way of receiving plenty of heat and light, and the benefit of the actinic rays of the sun, together with dry atmosphere, undoubtedly we place him in a position of great advantage.

Regarding medication, we consider of first importance the hypodermic method because the medicine is introduced into the system in its pure state, undergoing no change by contact with the secretions of the stomach or intestines; besides, whatever good it does in a selective way, the system may get the full benefit. This we believe is the preferable way, whether the disease be much localized in the lung or not. Notwithstanding particular localization, there is always spontaneously generated from this source a certain amount of septic poison, so that cases of phthisis pulmonalis are essentially forms of septicemia, a general septicemia of some sort induced by the circulation of some toxic material which poisons the tissues generally. This seems perfectly rational, and ought to be very generally accepted. Now, if we can introduce something into the economy that will neutralize the septic material, of course, we take a step forward. It is claimed by many that nothing but a colloid substance—organic—can be expected to act permanently in this way to neutralize an animal poison. We have not time to go into this question which, together with a great many other such questions, may be relegated to the chemist, who in the near future must settle many mooted points of pathology. I will only say that this is certainly not borne out in practice. For we may

*(Continued on Page 448)*

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*(Continued from Page 446)*

introduce an alkaloid into the general system with as much hope of its producing a permanent, prompt, and selective effect, as though it were colloid; it is not necessary, then, that it be an animal poison. However, while we can produce such effects from an alkaloid just as well as a colloid the effect is not as lasting, because there are no secondary or cumulative effects excepting upon the nervous system, so that the injections must be repeated.

Therefore, I still believe that is the proper and rational method of systemic treatment. We prefer iodine and chloride of gold and sodium, but perhaps iodine and chloride or gold and sodium may not be the best chemicals. There may be found some others that will answer the purpose better. Undoubtedly there will be, but these two chemicals have done much good in pulmonary phthisis of the earlier stages. But, of course, they are not capable of controlling the septicemia which occurs in a large class of cases. Take, for instance, a case showing evidence of tuberculosis affecting the mesenteric glands as well as the lungs: it is very difficult to put enough of any chemical into the system without getting a toxic effect, to neutralize it. Besides this method, we may be able to modify the source of poisoning by proper inhalations, antiseptic inhalations of some sort. When there are patches of caseation that are accessible to the bronchial tubes, by the use of some gas which can reach that part, in this way a cutting off of the source of septic material may be obtained, and for that reason different gases have been used from time to time. Chlorine gas has been used at different times, but abandoned because irrespirable; however, it has been found practicable for inhalation when properly used, mixed with salt spray, and the cases properly selected for it. We may use also the antiseptic balsams for the same purpose. These not only have a local effect in quieting the immediate symptoms known as cough and so on, but certainly have the ulterior effect of cutting off the supply of septic material. So that, so far as the therapeutic indications are concerned, there seems to be two: one to limit the extension of the disease, and the other to neutralize the septic material that is being generated from hour to hour in the course of the disease. One thing that for many years has given me great hope that we might achieve something in the treatment of phthisis pulmonalis, is that a great many of the local changes, the pathological changes, which take place in the lung, are really conservative. They are nature's efforts to limit the disease, and to throw off the materies morbi, whatever it may be.

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## COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, May 6, 1942—Committee on Distribution of Medical Care—Hotel Olds, Lansing—3:00 p.m.
2. Sunday, May 10, 1942—Syphilis Control Committee—Hotel Olds, Lansing—5 p.m.
3. Thursday, May 14, 1942—Executive Committee of The Council—Hotel Statler, Detroit—4:30 p.m.
4. Thursday, May 14, 1942—Cancer Committee—Woman's League, Ann Arbor—6 p.m.
5. Friday, May 15, 1942—Maternal Health Committee—Hotel Statler, Detroit—12 noon.

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## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, April 29, 1942—Bay City—Speaker: Frank A. Weiser, M.D., Detroit—Subject: "Nephritis"

*Calhoun*—Tuesday, May 5, 1942—Battle Creek—Speaker: Traian Leucutia, M.D., Detroit—Subject: "Aspects of Radiation Therapy of Interest to the General Practitioner."

*Genesee*—Tuesday, May 12, 1942—Flint—Business meeting and special entertainment.

*Hillsdale*—Thursday, May 14, 1942—Hillsdale—Speaker: Ben Goodrich, M.D., Detroit—Subject: "Rheumatic Fever."

*Ionia-Montcalm*—Tuesday, May 12, 1942—Ionia—Program by staff of Ionia State Hospital under the direction of P. C. Robertson, M.D.

*Jackson*—Tuesday, April 21, 1942—Jackson—Speakers: Elmore C. Vonder Heide, M.D., Detroit and Allan C. Barnes, M.D., Ann Arbor—Subjects, respectively—"Therapeutics of Whole Blood, Plasma and Serum," and "Estrogenic (steroid) Hormones."

*Kent*—Tuesday, May 12, 1942—Grand Rapids—Program on "Office Management of the Cardiac Patient" in which the following physicians of Grand Rapids participated: J. W. Rigterink, M.D., H. C. Robinson, M.D., Ward Chadwick, M.D., J. R. Brink, M.D., J. P. Marsh, M.D., and Wm. L. Bettison. Also Russel deAlvarez, M.D., Ann Arbor, spoke on "Report of the Obstetrical Survey of 1940."

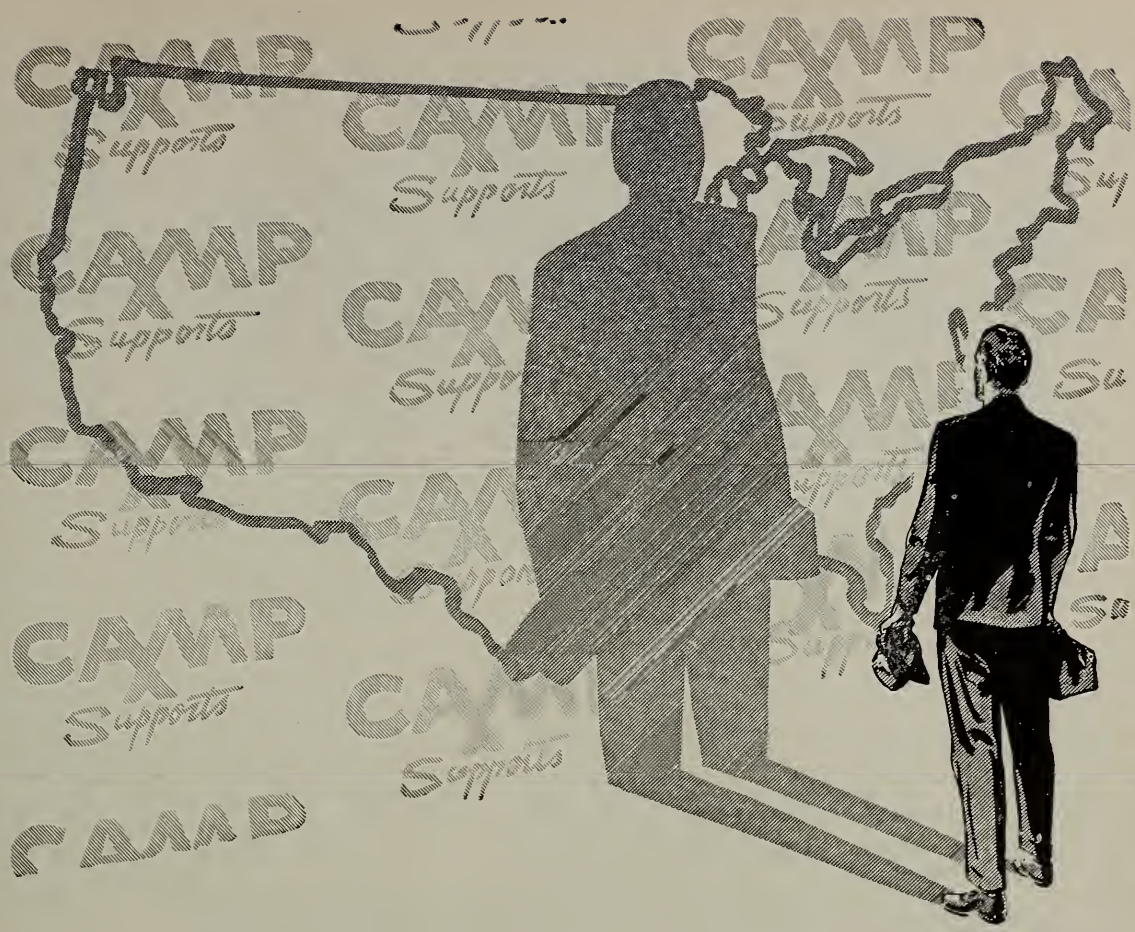
*Macomb*—Tuesday, May 19, 1942—Mt. Clemens—Speaker: Frank Van Schoick, M.D., Jackson—Subject: "Immunization Program."

*Muskegon*—Friday, May 15, 1942—Muskegon—Speaker: Walter C. Alvarez, M.D., Rochester, Minn.—Subject: "Care of the Nervous Patient."

*Oakland*—Wednesday, May 13, 1942—Rotunda Inn—Speaker: Walter C. Alvarez, M.D., Rochester, Minn.—Subject: "Puzzling Conditions of the Abdomen."

*St. Clair*—Tuesday, April 21, 1942—Port Huron—Business Meeting. Tuesday, May 12, 1942—Port Huron—Speaker: F. F. Yonkman, M.D., Detroit—Subject: "Sulfa Derivatives."

*Washtenaw*—Tuesday, May 12, 1942—Ann Arbor—Speaker: Robert Cummings, M.D., Ann Arbor—Subject: "Results of Bilateral Orchidectomy in Carcinoma of the Prostate.

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## SELECTIVE SERVICE MEMORANDUM

Memorandum (M-273) issued to all Local Boards and Appeal Boards by the Selective Service System, Michigan Headquarters, re Doctors of Medicine:

1. The shortage of doctors of medicine in the Army is more serious than at any time in the history of this country.

2. *Every local board should at once reopen the classification of all doctors of medicine of the first and second registrations only.* The doctors should then be urged to apply for commissions. This includes all doctors that may be classified at the present time in I-B, II-A, II-B, III-A or IV-F and those who have previously been rejected by the armed forces for commissions since there has been a radical change in the physical standards for medical officers.

3. In case of dependency claims, advise them that the family income will be much greater as a commissioned officer than it will be under the proposed allotment plan on an enlisted basis. The minimum monthly pay and allowances for a medical officer with dependents is $262.67.

4. Doctors should apply for Commission through *Lt. Col. J. G. Slevin, M.C., Room 320, Federal Building, Detroit, Michigan.* They should know within a week whether they are acceptable for a commission since the entire processing will be done by the Detroit office. It is no longer necessary to wait several weeks or months for a commission. Even though an application may be pending, they should apply also through the above officer.

5. At the same time the Local Board should, through State Headquarters, contact the State Procurement and Assignment Committee concerning each individual doctor.

E. M. Rosecrans,
May 8, 1942 State Director

## MEDICAL OFFICER RECRUITING

The urgent need of the Army for 21,500 medical officers before the end of the year and for 7,000 of this number by July first, was forceably impressed upon the physicians of this state by a recent letter from Dr. Paul R. Urmston, chairman of State Procurement and Assignment Service to all members of the State Society. Since this letter was mailed early in May, the actual machinery of granting commissions through the Medical Officer Recruiting Board has been placed in high gear. The Board, composed of Lieut. Col. Paul R. Priestly, representing the Adjutant General and Lieut. Col. John G. Slevin, the Surgeon General's representative, opened headquarters at 320 Federal Building, Detroit. With the aid of volunteers from the Women's Auxiliary of the Wayne County Medical Society, the Recruiting Board began to function immediately. During the first week twenty physician applicants were processed.

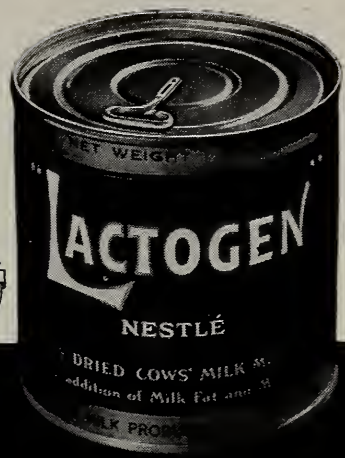
While the first physician-recruits came from Wayne County, the recruiting drive spread throughout the lower portion of the state. During the last two weeks of May the Recruiting Board interviewed applicants at Kalamazoo, Flint, Jackson, Battle Creek, Lansing and Grand Rapids. In all, twenty-two counties were covered.

Recruiting activities were carried on at Bay City June 4, Saginaw June 5, Benton Harbor June 11, and at the station hospital, Fort Custer June 12 and 13. The Detroit office is prepared to interview personally any interested physician.

Any doctor of medicine under forty-five who is an American citizen, a graduate of a Class A medical school, who has completed one year of internship and is licensed to practice medicine and is actually engaged in ethical practice may apply for a commission in the Army. However, the Recruiting Board can grant commissions only to those physicians who have been certified as available for military service by the State Procurement and Assignment Service. Thus, physicians essential to the health and welfare of the community will not be permitted to enter military service.

Commissions will be granted in the grade of first lieutenant to those under the age of thirty-seven. Between the ages of thirty-seven and forty-five, physicians with unclassified training will be offered commissions as captains. Qualified specialists under thirty-seven may be commissioned as captains. These groups will be commissioned by the Medical Officer Recruiting Board without reference of their applications to higher authority. Specialists between 37 and 54 who desire to apply for the grade of Major will have their papers processed by the Recruiting Board and then referred to the Surgeon General for final action. It is the policy of the War Department to grant commissions in the grade of major only to those specialists who can qualify

*(Continued on Page 452)*

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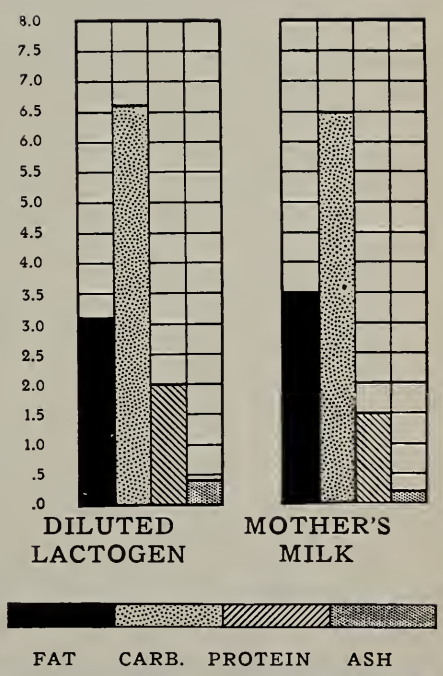


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*John Lovett Morse, A.M., M.D.*
*Clinical Pediatrics, p. 156.*

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*(Continued from Page 450)*

as chief of a service or section in a large military hospital.

The War Department has stated that for the purpose of granting commissions it will consider as specialists only those physicians who are diplomats of American Specialty Boards, Fellows of the American College of Surgeons or American College of Physicians or who have completed formal postgraduate training such as is required to be eligible for examination by an American Specialty Board, including the required number of years of practice in that specialty. In practice, the Medical Officer Recruiting Board of Michigan will be guided, according to Col. Slevin, by the advice in individual cases furnished by the Regional Office of Procurement and Assignment Service.

The Recruiting Board will receive applications from those who desire assignment to the Air Corps.

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## INSURANCE PROTECTION FOR SERVICEMEN

What are insurance companies doing to preserve the present insurance protection that is carried by policyholders who enter the armed forces of the United States?

The answer of one of the largest insurance companies is that, under the anti-discrimination statutes of the various states, insurance companies are unable to forego the payment of premiums required by their policies, and no such arrangement, therefore, is in operation or in contemplation. The "anti-discrimination statutes" relate to laws similar in all states which have been passed with the object of forbidding discrimination by insurance companies between policyholders of the same class and equal expectation of life; that is to say, an insurance company is under a legal duty to accord to policyholders of the same class identical treatment, giving to each of them the same benefits and privileges and requiring of them the same burdens. In no state is any law to be found suggesting that because a policyholder is in the armed forces of the nation, such individual is to have insurance protection without payment therefor. No class is specially favored. According to the insurance companies, if premiums are not paid, the company is not alone powerless but is forbidden by law to grant insurance protection.

The problem of preserving the servicemen's protection resolves itself therefore into devising means whereby premiums can be paid automatically, *either in cash or by loans.*

Under the Soldiers' and Sailors' Civil Relief Act, a serviceman can apply for government assistance in the payment of premiums on any amount of life insurance up to $5,000. Application is made to the Veterans Administration, and if approved the government advances the premiums as they become due. These advances, with interest, will eventually be repaid to the government (within one year after the man in service is mustered out).

Realizing that conditions arising out of service, absence from home, capture by the enemy, missing in action, etc., might jeopardize the continuance of insurance protection, Public Law 490 was approved by the President of the United States and became effective on March 7, 1942. Under the provisions of this law the Allotment Officers of the various services are given authority to pay insurance premiums by pay allotment, without the authority and consent of the insured, if, in their opinion, such action is necessary to protect the insured or his dependents. This law, permitting the Allotment Officers to act for the insured when he is not in a position to attend to his own affairs, should be of great benefit to the serviceman and his dependents.

Notwithstanding efforts that are being made to continue insurance in force, there will be cases where, because of reduced income, it will not be possible for servicemen to pay the premiums on all the outstanding insurance on their lives. In some of these cases it may be more advisable to allow part of the insurance to operate under the Continued Insurance or Paid-Up features of the contract, rather than to continue the policy in full force by means of a policy loan.

To illustrate, if a person aged 35 obtained a $5,000 Whole Life policy during the year 1935 and permitted the policy to lapse after an annual premium of $112.80 had been paid for a period of 6 years, he would at that time have had available as a cash surrender value $345.00, or in lieu of the surrender value he could have directed within a period of 3 months after the due date of the premium in default that his equity in the policy be applied to provide $740.00 of paid-up life insurance payable in the event of his death; or by taking no action at all the equity

in the policy would be applied automatically, in accordance with the conditions of the policy, to continue the $5,000 of insurance protection in effect for a period of seven years and five months running from the due date of the premium in default. The longer the policy is in force, the larger the cash surrender value, and consequently the amount of paid-up insurance or the period of term insurance would increase with the increase in the number of years premiums had been paid.

It is respectfully recommended to physicians who anticipate service in the armed forces that they request information of the companies with which they have insurance policies. Some of these companies have already created War Service Insurance Bureaus, in order to help policyholders who, because of war conditions, are unable to maintain all their insurance in force.

The above applies only to insurance held with private companies—not to the protection of $10,000 maximum which is offered to men in service by the U. S. government.

## QUESTIONS AND ANSWERS

1. *Question:* Is a veteran of the World War, who has now enlisted for active service with the United States Forces, entitled to the $10,000 government insurance in addition to the $10,000 insurance which was offered and accepted by him in the World War?

*Answer:* No one person may under the authority of Law carry more than $10,000 in United States Government life insurance and National Service life insurance combined at any one time.

2. *Question:* When a doctor of medicine is assigned to "limited service" in the armed forces of the United States, what type of work will he perform?

*Answer:* A doctor of medicine who is placed in limited service will probably not see service in the field. He will be used in administrative work and in hospitals that are more or less fixed, such as station hospitals. He probably will not leave continental United States.

## PROCUREMENT AND ASSIGNMENT FORMS AND QUESTIONNAIRE

Every Michigan physician should have received a new Procurement and Assignment Form and Questionnaire during the last week in April. *Any physician who did not receive these documents* should drop a postal card to the National Roster of Scientific and Specialized Personnel, 916 G. Street, N. W., Washington, D. C., asking that the forms be mailed to him.

It is the hope of the Procurement and Assignment Service that each physician will complete the forms IMMEDIATELY and return them to Washington in the envelope which accompanied the forms.

Physicians who are willing to offer their services for active military service should indicate same on the enrollment form. Physicians who cannot qualify for military service because of physical conditions or age, or who believe their ability and experience can be of more value to the country if they were to serve in some other capacity, should indicate their preferences on the enrollment form. The information asked on the questionnaire should be given in full.

Signing the enrollment form does not carry with it any compulsion. This is the big distinction between Procurement and Assignment Service and Selective Service.

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## DISTRICT CHIEFS, MICHIGAN CIVILIAN DEFENSE

**District 1**
Chief: G. C. Penberthy, M.D., 1553 Woodward Ave., Detroit
Deputy Chief: Bruce Douglas, M.D., Detroit Dept. of Health

**District 2**
Chief: Howard H. Cummings, M.D., 216 S. State St., Ann Arbor
Deputy Chief: Hugh Beebe, M.D., 326 N. Ingalls St., Ann Arbor

**District 3**
Chief: Matthew R. Kinde, M.D., W. K. Kellogg Foundation, Battle Creek
Deputy Chief: Robert B. Harkness, M.D., Hastings

**District 4**
Chief: Burton R. Corbus, M.D., 110 Fulton St., S.E., Grand Rapids
Deputy Chief: Charles V. Crane, M.D., 124 Fulton St., E. Grand Rapids

**District 5**
Chief: F. T. Andrews, M.D., Bay County Health Dept., Bay City
Deputy Chief: John T. Connell, M.D., Dryden Bldg., Flint

**District 6**
Chief: B. H. Van Leuven, M.D., Grand Traverse County Health Dept., Traverse City
Deputy Chief: Mark Osterlin, M.D., Central Michigan Children's Clinic, Traverse City

**District 7**
Chief: C. P. Drury, M.D., Marquette City Health Dept., Marquette
Deputy Chief: N. J. McCann, M.D., Ishpeming

# MICHIGAN PHYSICIANS IN MILITARY SERVICE

The following list is supplementary to the lists which appeared in the April and May issues of THE JOURNAL. Accurate information is solicited from the readers of THE JOURNAL in order to make the list of Military Members complete. Names and addresses, together with the rank of the medical officer, should be addressed to the Michigan State Medical Society, 2020 Olds Tower, Lansing, Michigan.

*Alpena-Alcona-Presque Isle*—Harold Kessler, M.D., Selfridge Field, Michigan.

*Bay-Arenac-Iosco*—Wm. H. Gronemeyer, 1st Lieut., MC, USA, Camp Barkeley, Texas; Joseph C. MacPhail, Lieut (j.g.), MC, USNR, Navy Yard, Charleston, S. C.

*Berrien*—Bouton Sowers, Lieut. Commdr. U. S. Navy, Naval Hospital, Mare Island, Calif.

*Calhoun*—James D. Sleight, Capt., MC, USA, Sheppard Field, Texas.

*Gratiot-Isabella-Clare*—Don K. Barstow, 1st Lieut., MC, USA, Mather Field, Calif.; E. C. Dale, 1st Lieut., MC, USA, Fort Custer, Michigan.

*Ingham*—Charles R. Doyle, MC, USA, Fort Douglas, Utah; Kenneth H. Johnson, 1st Lieut., MC, USA, Geiger Field, Washington; Frederick C. Swartz, MC, USA, Fort Douglas, Utah; Roy O. Webb, MC, Sixth Corps Area Headquarters, Chicago, Illinois.

*Jackson*—J. E. Ludwick, MC, USNR, New Orleans, La.

*Kalamazoo*—Carl Rex Moe, U. S. Navy (home address Kalamazoo); Wm. J. Clerk, MC, Fort Knox, Kentucky.

*Kent*—Harrison S. Collisi, Major, MC, USA, Billings General Hospital, Fort Benj. Harrison, Indiana; George T. Aiken, Capt., MC, USA, (home address Grand Rapids).

*Macomb*—P. T. Mulligan, Capt., MC, USA, Sheppard Field, Texas.

*Menominee*—Walter F. Sethney, 1st Lieut., MC, USA, Hill Field, Ogden, Utah.

*Wayne*—Wayne A. Geib, 1st Lieut, MC, USA, Camp Devens, Massachusetts.

The following changes regarding those whose names appeared in previously published lists have been received in the Executive Office:

Captain I. C. Berlien, MC, informs us that he has been moved from Detroit to the Kalamazoo Induction station.

Captain L. Grant Glickman has been promoted from 1st Lieutenant and is now stationed at Fort Warren, Wyoming, induction station.

Major Richard D. Mudd, formerly of Saginaw, sent a chronological list of his addresses since April 19, 1941, when he entered active military service. Major Mudd has been stationed at Scott Field, Illinois; Fitzsimons General Hospital, Denver, Colorado; Carlisle Barracks, Pennsylvania; and at the present is Surgeon, Duncan Field, San Antonio, Texas.

1st Lieut. Ben Marks has been transferred from Detroit to the Kalamazoo Induction station.

Laurence M. Hilt, formerly of Grand Rapids, holds the rank of Lieutenant Commander in the U. S. Navy and is stationed at the Naval Hospital, Mare Island, California.

Captain Frank H. Power, MC, formerly of Ann Arbor, has been transferred from Fort Jackson, South Carolina, to Gorgas Hospital, Ancon, Canal Zone.

Information has just been received reporting the promotion of Sol C. Grossman to the rank of Captain. Captain Grossman is stationed at Kalamazoo.

### Corrections

The April issue of THE JOURNAL carried the name of Captain Edwin M. Williams, Randolph Field, Texas. This should have been Captain Edwin M. Williamson, Randolph Field, Texas.

Through error, the name of Lt. Colonel T. P. Vander Zalm, MC, formerly of Lansing, now at the Station Hospital, Camp Hulin, Texas, was omitted from the list published in the April JOURNAL.

John Wellman, formerly of Lansing, has been promoted to the rank of Major and is stationed at Lawson General Hospital, Atlanta, Georgia.

Kenneth W. Toothaker, formerly of Lansing, is Lieutenant, Sr. Grade, in the Navy.

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# READERS' SERVICE

## ARTERIAL HYPERTENSION—FORTY YEARS IN RETROSPECT

To this date there has been no brilliant and revealing light shed upon the obscurities surrounding the problem of high blood pressure. We welcomed with great interest the arrival of the first clinical sphygmomanometer. Greatly as this instrument has added to our exact knowledge and widened our interest in circulatory diseases and indispensable as it has become, it has often occurred to me, looking at the matter from a different angle, that it might have been better for mankind in general if this instrument had never been adapted for clinical use and become so universally employed, but had remained as it originally was—an item of laboratory technology. By dealing in precise figures to gauge a phenomenon we understand so imperfectly, we establish false values to confuse our own judgment and often hopelessly shatter the patient's peace of mind.

It is stated that 50 to 75 per cent of all deaths from C.V.R. disease, estimated to be 500,000 yearly, are due to essential hypertension. The generally accepted belief is that it is in the first instance a functional perversion—a generalized vascular hypertonus, progressively elevating peripheral resistance in the precapillary bed under some morbid stimulation. The biochemistry of the body has been raked to identify some organic derivative that might act in this manner, the products of chronic infection have been examined, man's psychic experiences and social misfits and his environmental experiences all have been subjected to minute consideration and analysis, but to little avail.—Arthur R. Elliott, M.D., Chicago, Illinois (See Page 463).

## CHONDROMA OF THE TONGUE

Neoplasms of the tongue are common, but the cartilaginous type is very rare. The cartilage cells have rather active proliferative powers, possess amœboid properties and are readily subject to metaplastic changes. Etiological factors of tongue tumors are unknown but tongue injuries are predisposing causes. In this case the tumor caused no symptoms over twenty years. Removal of the cartilaginous tumor in most cases gives complete cure.—Joseph Johns, M.D., Ionia, Michigan (See Page 471).

## IS THERE A CLINICAL SYNDROME CHARACTERISTIC OF HYPERTROPHIC GASTRITIS?

Nearly 15 per cent of 600 gastroscopies showed hypertrophic gastritis. This disease has been reported by many authors as having a symptom complex resembling peptic ulcer.

Fifty cases of hypertrophic gastritis were analyzed. Almost all the patients complained of abdominal pain, and in over half it was in the epigastrium. Relief by alkali and food was less constant than patients without peptic ulcer. The lesions were diagnosed by gastroscopy but in only one case by x-ray. The ratio of males to females having the disease was approximately 7 to 1. In two-thirds of the cases occult blood was present in the stools. The gastric analyses were on the high side of normal. The patients were treated by a modified ulcer regime for the most part, but two received deep roentgen ray therapy.—H. M. Pollard, M.D., and R. R. Cooper, M.D., Ann Arbor, Michigan (See Page 473).

## TULAREMIA, ENDEMIC IN SOUTHERN MICHIGAN

A localized outbreak of ten cases of tularemia in Michigan is described, each of these cases being of the ulceroglandular variety. A patient presenting indolent, furuncle-like lesions, usually about the hands, with indefinite systemic symptoms suggestive of an acute infection, and painful, tender, regional adenopathy should make the physician suspicious of tularemia, especially if there is a history of handling wild rabbits. Laboratory aids in the diagnosis of this disease are the agglutination test and animal inoculation, the latter being the more reliable of the two. As to treatment, surgical intervention for the purpose of incision and drainage is contraindicated unless suppurating adenopathies are encountered. Of the sulfonamides, sulfathiazole gave the best therapeutic results in this series. Symptomatic treatment is an important adjunct in the therapy of all cases of tularemia.—Edward Philip Cawley, M.D. (See Page 476).

## FOCAL INFECTION IN THE NOSE AND THROAT—RETROSPECT AND FORECAST

Sound medical opinion in 1941 regarding focal infection is very different from the concept as originally formulated twenty-five years ago. Adequate references for this conclusion are given.

The nose and throat evidence is that sinuses when infected are rarely the cause of systemic disease, that the positive relationship of infections in the tonsils to systemic disease is not invariable, and that the removal of harmless tonsils as a prophylactic measure is unjustified in the majority of cases.

*(Continued on Page 458)*

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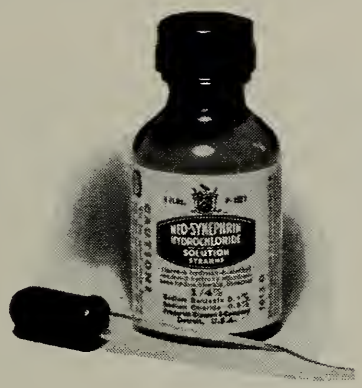

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*(Continued from Page 456)*

In spite of this, other current articles show that many writers have not kept abreast of the times. The public and the mass of the medical profession as well require to be told in no uncertain terms that the removal of a presumed focus of infection is not the Utopian short cut to the eradication of disease.—D. E. STAUNTON WISHART, M.D., Toronto, Canada (See Page 478).

## TREATMENT OF FACIAL WOUNDS DUE TO EXPLOSIVES

In the present national emergency we may expect to be called upon to treat wounds, due to explosions, both in civilian and military life. For this reason it was thought advisable to review briefly the high lights of the plastic repair of such injuries.

Of greatest importance in this treatment is the conservation of soft tissues of the fact and its bony framework; careful elimination of powder marks, cinder marks, etc., as the first treatment may save marked disfigurement later; the early skin grafting of large denuded areas, chemical burns, etc., should minimize the deformities.

Extensive plastic repairs must be delayed for several month, but many mutilated victims can be improved immensely by patient plastic procedures.—CLAIRE L. STRAITH, M.D., Detroit, Michigan (See Page 484).

## STAPHYLOCOCCUS MENINGITIS—CASE TREATED BY SULFADIAZINE WITH RECOVERY

A case of staphylococcus meningitis is reported which was treated successfully by sulfadiazine. A sixty-four-year-old hypertensive cardiac developed drowsiness, headache, neck rigidity and fever thirty-six hours after the onset of acute otitis media. Mastoid x-rays were negative. The spinal fluid was cloudy, contained 1,233 cells and showed Staphylococcus aureus on culture. One gram of sulfadiazine was given every 4 hours by mouth. After six days the patient regained consciousness and her temperature dropped to normal. By the tenth day she was symptom-free except for weakness, her spinal fluid was sterile and contained only thirteen cells. Sulfadiazine is recommended for this disease because of its low toxicity and its diffusibility through the meninges.—By WILLIAM S. MCCUNE, M.D., Petoskey, Michigan (See Page 487).

According to the "Information Service," issued bimonthly by the Birth Control Federation of America, France's low birthrate of 14, as against India's rate of 48, Japan's 30 and Italy's 23, has done her no good and is not nearly low enough. It seems that she is still greatly overcrowded, since "only about 2 per cent of agricultural properties are more than 16 acres in extent." Her standard of life, it is alleged, is correspondingly low.—*New York Times.*

## FACTUAL DATA RE MICHIGAN MEDICAL SERVICE

*Enrollment.*—There are almost half a million subscribers enrolled in Michigan Medical Service —469,075 in the Surgical Benefit Plan and 5,504 in the Medical Service Plan. The number of subscribers has more than doubled each year (March, 1940—58,679; February, 1941—131,199; February, 1942—443,291).

*Income.*—Payments from these subscribers total an income of $225,000 monthly, collected in advance as a guarantee of payment of services from doctors. This prepayment of medical bills means distribution of approximately $10,000 each working day to physicians. About 5,000 cases are reported each month.

*Coöperation of Physicians.*—A total of 3,539 doctors of medicine are registered as participating as of May 14, 1942. This means that approximately 80 per cent of the doctors of medicine in active practice are participating in the program.

*Payments.*—Services rendered have been paid at 100 per cent of the Schedule of Benefits, which is established by the physicians themselves through committees representing practically all types of practice, during twenty-one out of the twenty-seven months the plan has been in operation. During the past eight months payments have been made at 100 per cent. $1,691,401.60 represents the cash payments made to physicians since the program began. Over 3,200 physicians located in every county in the state have received payments for services to subscribers.

## ONTARIO MEDICAL WELFARE PLAN

For the past seven years, medical care and medication have been provided to relief recipients throughout the Province of Ontario, Canada, in accordance with an arrangement between the Department of Public Welfare and the Ontario Medical Association. Effective April 1, 1942, the plan was extended to include all Old Age Pensioners, Blind Pensioners, and Mothers' Allowance beneficiaries and will be known as the Medical Welfare Plan.

The March, 1942, issue of the *Ontario Medical Association Bulletin* outlines fully the provisions and arrangements of this new extended program.

For the payment of 50 cents monthly by the Ontario Government for each person in the relief categories designated, the Ontario Medical Association arranges for the provision of home and office general practitioner services, including provision of commonly used drugs in minimum quantities. The fund of money collected has been sufficient to pay physicians approximately one-half of the prevailing charges for their services to these indigents.

Medical care for hospitalized patients, sur-

*(Continued on Page 460)*

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Pentobarbital Sodium has justly gained wide professional acceptance, not merely because it is probably the most widely investigated barbiturate, but mainly because it offers these advantageous properties:

It is effective in small dosage, yet there is a relatively wide margin of safety between therapeutic dosage and the minimum lethal dose. * * * Induction of sleep is prompt, yet gradual. Within 30 minutes after administration the patient becomes drowsy, and sleep sets in. * * * Since Pentobarbital Sodium is destroyed in the body with comparative rapidity, the induced sleep is of relatively brief duration, six to eight hours. * * * With proper regulation of dosage there is rarely any post-sleep depression—the patient usually wakes refreshed, clearheaded, as from normal sleep of similar duration.

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*(Continued from Page 458)*

gery, x-ray, specialist treatment, and expensive medications are not included.

As to the value of the program, the following statement is made in the *Ontario Bulletin:*

"The great majority of general practitioners in Ontario are participants in the plan. For this there are two main reasons:

"1. It is recognized that, whether we want it or not, a state plan for medical care is in the offing, and the only way to avoid political and lay domination in medical matters is to continue handling medical administration ourselves.

"2. Those doctors who participate in the plan receive some monetary recognition for their care to indigents which, however, does not include any payment for surgery or other services to hospitalized patients."

E. W. Vanstone, secretary of the Ontario Medical Association Medical Welfare Board, which conducts the administration of the program, indicates that the additional beneficiaries will total approximately 100,000 persons.

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**RATIONED TIRES AND PHYSICIANS**

Beginning January 5, 1942, automobile tires and tubes were rationed "only to persons performing a function essential to the war effort or to the health and welfare of the nation as defined in the rationing order issued by the Office of Production Management, and signed by the President." Among those vehicles designated for which tires may be obtained are "those which are operated by physicians, surgeons, visiting nurses, or veterinaries, and which are used principally for professional services." Tires may also be rationed to ambulances, certain busses and trucks.

The Office of Price Administration, which has charge of the tire rationing program for the nation, interprets the eligibility of physicians automobiles as follows: "The board shall issue certificates for vehicles in this class only to doctors, nurses and veterinaries, whose professional practice is to make regular calls outside their offices and who use automobiles to make their professional calls. No certificate shall be issued unless the doctor, nurse or veterinary applying, shows that the particular car on which the tire or tube is to be mounted is actually used for professional calls and is used principally for that purpose."

Application forms for new tires are available at each approved tire dealer or garage, post office, police station and the office of the local Tire Rationing Board (county or city clerk). Before submitting formal application, however, the tires must be inspected by one of the approved dealers or garages authorized to inspect and report on the condition of the applicant's tires. If the authorized inspector finds that the tire or tires which the applicant desires to replace are unsafe, cannot be repaired, reconditioned, or retreaded, the inspector will so certify on the application form.

The application should then be taken to the local Tire Rationing Board for consideration. If the Board finds the applicant falls within the eligible classification, it may issue a certificate for the purchase of the desired tire within the quota of tires assigned to the Board. The tire must be mounted on the physician's car. Each Board will have a monthly quota assigned of which one quarter is available each week. Excess allotments will carry over from week to week, but not from month to month. As soon as the stated allotment has been used, no more tires will be available until the next week.—Extract from *Instructions for Tire Rationing, O.P.A.*



*Say you saw it in the Journal of the Michigan State Medical Society*

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
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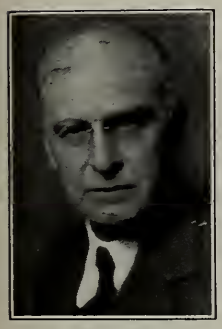
# Arterial Hypertension

## Forty Years in Retrospect*

By Arthur R. Elliott, M.D., LL.D., F.A.C.P.
Chicago, Illinois



Arthur R. Elliott, M.D.

*M.D., Queen's University, Canada, 1892; LL.D., Queen's University, 1926. Clinical Professor of Medicine, Rush Medical College, University of Chicago. Senior Attending Physician and Head of Medical Division of St. Luke's Hospital, Chicago.*

I am aware that to adopt the rôle of retrospective analyst is to lay oneself open to the gibe "armchair medicine." It has long since gone out of fashion to play the part of philosopher. Little of the enormous output of medical literature is concerned with appraisal. Our current publications comprise principally protocols or preliminary memoranda of clinical and laboratory research, having to do mainly with but one aspect of a problem without cördination and haphazard, and even at that rarely carried through to completion. Were it not for the occasional brilliant discovery that extends our horizon and opens up new fields for investigation, this confusion of tongues would leave one with a sense of futility. Unfortunately, to this date, there has been no brilliant and revealing light shed upon the obscurities surrounding the problem of high blood pressure. It is one of the major problems in medicine awaiting solution. It still remains one of the rapidly diminishing group of diseases of obscure causation. In many respects, we know little more about it than we did at the turn of the century. We have accumulated from research and investigation much more detailed knowledge of the incidental aspects of this perversion of vascular physiology, but have as yet no sure interpretation of its etiology.

Forty years ago the term high blood pressure was not current in the clinic. We spoke of arterial tension in those having thickened, incompressible arteries, and showing the so-called "wave of tension" on the downstroke of the sphygmogram. Although purely qualitative, and of course crude, this instrumental finding was often correct, but we had no means of estimating the degree of pressure and had to rest content with the assumption that there existed a morbid increase of pressure in the arteries resulting in thickening of their calibre, work-enlargement of the heart and increased tension on the aortic valves.

This guesswork was, of course, not satisfactory, and we welcomed with great interest the arrival of the first clinical sphygmomanometer. Greatly as this instrument has added to our exact knowledge and widened our interest in circulatory diseases and indispensable as it has become, it has often occurred to me, looking at the matter from a different angle, that it might have been better for mankind in general if this instrument had never been adapted for clinical use and become so universally employed, but had remained as it originally was—an item of laboratory technology. By dealing in precise figures to gauge a phenomenon we understand so imperfectly, we establish false values to confuse our own judgment and often hopelessly shadow the patient's peace of mind.

Clinical measurement of the arterial blood pressure became possible with the introduction by Riva-Rocci of his blood pressure gauge in 1896, but as late as the opening of the present century, blood pressure measurements were made only by

*Presented at the Seventy-fifth Annual Meeting of the Michigan State Medical Society in Detroit, Sept. 25, 1940.

special investigators. It is said that in the well-known and, at that time, authoritative book on *Diseases of the Kidneys,* by Senator, published in 1902, there is not a single figure for blood pressure given and in the original edition of Oxford Medicine, published well after the present century had begun, the subject of arterial hypertension is disposed of by Sir James Mackenzie in two short pages of text. It is only during the past twenty-five years that measurement of blood pressure has become an integral part of the clinical examination.

### Hypertension Not a Disease

I presume that it is inevitable when we deal with a phenomenon, the whys and wherefores of which we have no exact understanding, that we come to look upon it entirely too much as an isolated fact. My impression is that arterial hypertension is a striking illustration of confusing the perspective because we neglect the fact that it is a symptom only and talk about it and treat it as a disease. Undoubtedly, we may excuse ourselves for this inasmuch as from this symptom widespread and serious secondary tissue damage results that constitutes in more than one organ a true disease process. Still, withal, at its inception and during the initial stages, often prolonged as to time, the perversion is undoubtedly a functional one—strictly speaking a symptom, yet a symptom that in its effects has become one of the most important problems in clinical medicine. We get an inkling of the immensity of its significance to mankind from the statement credited to Fahr that in the year 1924 in the United States 140 thousand deaths were due to arterial hypertension and its consequences, this constituting 23 per cent of all persons dying over fifty years of age. Fahr's figures, amazing as they may seem, are eclipsed by Allen of the Mayo Clinic who, in a recent communication, ventures the conjecture that from one-half to three-fourths of all deaths from cardiovascular-renal disease, estimated to be 500,000, yearly are due to essential hypertension. This reckoning would assign 250,000 to 375,000 deaths yearly to this cause. Stark figures of this kind need not be taken too literally. In the first place, this is largely assumption since so far as one may conceive, there does not appear to be any way of arriving at such an estimate. If this statement were to read that from 250,000 to 375,000 individuals dying yearly in the United States had elevated blood pressures, there could be little argument about it because mankind develops higher systolic values than normal in the last two decades of life. This is part of the involutional organic decline, long well-known in the clinic. Other things aside, man's aorta becomes rigid as he grows in years and his systolic pressure rises as life draws to an end. That the number of individuals with hypertension is increasing every year, we may safely assume, for the progressive rise in the average expectancy of life carries more and more people into the age period when it is most apt to develop. We need not wonder, therefore, at the large share that this vascular problem occupies in our everyday clinical life, or at how intently we follow the activities in clinic and laboratory undertaken to throw light on its obscurities.

The figure of that master clinician, Richard Bright, has cast a long shadow over the spread of our knowledge regarding cardiovascular-renal disease. Although he knew nothing about the concept "high blood pressure," he recognized the coincidence of hypertrophy of the heart with alterations in the kidney. In attempting to explain this, he postulated altered composition of the blood as the cause, which he said might either stimulate the heart abnormally or increase the resistance in the small arteries and capillaries. What the morbid material that so seriously affected the cardiovascular system might be, he naturally assumed as some retention product that failed of adequate removal by the diseased kidneys. This assumption dates back over one hundred years and during this long interval has been the point which investigators and students have sought to clarify, but as yet not successfully, for though many new facts have been accumulated, no theories have been advanced that appear nearer the truth than Bright's deduction.

### Development of Terminology

When the methods of instrumental precision enabled us to link increase of pressure in the arterial circuit, cardiac hypertrophy and vascular damage with signs of kidney disease, it followed as a matter of course that the two conditions would become etiologically identified. This is not surprising because at autopsy it is the rule to encounter a triad of lesions, i.e., cardiac hypertrophy, arteriosclerosis and certain renal changes. Investigations have indicated very strongly that

each of these morphological abnormalities is a result and not a cause of arterial hypertension. For a long period the kidney lesions found in hypertension were not differentiated from chronic glomerulonephritis, both being united in the concept "chronic interstitial nephritis." Later studies showed conclusively that in hypertension the kidney lesion represents a secondary nutritional damage resulting from sclerosis of the renal arterioles and in recent years the term arteriolosclerotic kidney has been applied. In the course of time, it became apparent that in many instances the renal changes were minimal, large numbers of cases completing a long clinical course, often covering many years without ever a sign of kidney insufficiency. Convincing experience indicated that in the vast majority of patients with high blood pressure, the kidney moiety was a very unimportant factor since they died in the fullness of time of cardiac failure or cerebral hemorrhage, rarely of uremia as might otherwise have been expected. It was inevitable that this large group of individuals constituting fully 90 per cent of those having elevated pressures should be grouped together, perhaps without much discrimination.

**Clinical expediency called for some designation whereby to classify these cases and so the term "essential hypertension" came into general use. This is a name originally suggested by Janeway, the concept meaning to embrace all those cases of persistent high blood pressure not demonstrably secondary to organic disease or malfunction elsewhere in the organism, and particularly not having evolved from antecedent nephritis or urinary obstruction. There is a certain element of self-deception in the employment of this designation: the noun is all right, but the qualifying adjective is a symbol of ignorance because it implies that we do not know the truth about the matter.**

It is an attempt to wrest ourselves free from the kidney factor which throughout the life history of our preoccupation with this symptom haunts the scene like Banquo's ghost. Even now we are forced to confess that there is something more than coincidence in the practically invariable existence of some kidney change in the pathology of essential hypertension. In some instances the damage is minimal, these are early cases that have accidentally come to autopsy; but all gradations are seen down to extremely contracted kidneys. The renal damage progresses at a varying rate so that the state of the kidneys varies within wide limits. In the majority of instances we may infer this progress is so gradual that the kidneys outlive the heart and arteries so that death occurs from cardiac failure or cerebral apoplexy, or some intercurrent illness before sufficient inroads on kidney function have developed to induce uremia. The allocation of experience consigns about 90 per cent to the former and 10 per cent to the latter termination. When kidney insufficiency develops, it may come about gradually but sometimes it is interjected rather abruptly under some unknown morbid stimulation. The contrast between the clinical pictures of the apparently nonrenal and frankly renal types is extremely striking, so much so that it has led to regrettable subclassification, still further confusing a difficult subject. Fahr applies the term "malignant nephrosclerosis" to these cases, attaching specific importance to the presence of necrosis and endarteritis of the renal arterioles. Keith imported the designation "malignant hypertension" despite past prejudice against symptomatic classification. Neither one of these terms should be employed with the idea that it implies a distinct disease entity with perhaps a specific etiology. It is merely a severe form of essential hypertension and the necrosis of renal arterioles in the malignant phase should be viewed as an exaggeration of the same process apparent in the usual case as renal arteriolosclerosis. It seems to me that it were better to ignore the term malignant and look upon chronic hypertension as one large entity having in its development every grade of severity from mild and almost latent to intense and rapidly disorganizing.

## Etiology

The mystery of the etiology of essential hypertension has been a fascinating problem for investigation and experimentation, but little certainty has developed as to its cause, although much assumption has been advanced as to its pathogenesis.

**The generally accepted belief is that it is in the first instance a functional perversion—a generalized vascular hypertonus, progressively elevating peripheral resistance in the pre-**

**capillary bed under some morbid stimulation. The biochemistry of the body has been raked to identify some organic derivative that might act in this manner, the products of chronic infection have been examined, man's psychic experiences and social misfits and his environmental experiences all have been subjected to minute consideration and analysis, but to little avail.**

There appears to be a decided influence from heredity that must be more than coincidence for all are agreed that it seems to be operative as a factor in the background of a considerable percentage of cases. We find ourselves after forty years of study without any definite knowledge of its parentage and cannot, as yet, answer the question whether it represents a bizarre form of presenility in hereditarily predisposed individuals, perhaps as a biologic protest against intolerable environmental maladjustments, or springs primarily from some undiscovered organic focus with enough inherent dynamism to carry it slowly, but steadily, forward to the individual's undoing. Research to solve this problem goes on with increasing concentration and out of its studies and experiments come hints that we are approaching its solution. As has already been indicated during the period between Bright's original studies and the turn of the century, hypertension was believed to be due to kidney disease. Since then there has intervened a period during which this interpretation has been discredited except in a small minority of instances. Again, during recent years, the pendulum has swung back and we find our attention again focused on the kidney, especially through the work of Goldblatt and his associates. These investigators developed a standard technique for producing persistent hypertension of renal origin in animals. They accomplish this by partly occluding one or both renal arteries by specially devised adjustable clamps and found that loose constriction caused no rise of systemic blood pressure, that moderate constriction resulted in a gradual rise to about double normal where it might remain as long as five years. If the renal arteries were severely constricted, by tightening the clamps, pressure rose to high levels, the animal dying in uremia at the end of weeks or months. By way of control, they found that similar constriction of other arteries such as splenic, mesenteric and both femorals exerted no effect on systemic blood pressure. Since some of Goldblatt's dogs have been observed to have blood pressures as high as 250 mm. for five years without renal failure, the resemblance to essential hypertension is striking. Goldblatt found that hypertension due to renal ischemia from moderate constriction does not result from irreversible changes in the kidney parenchyma, because if the clamps are removed from the arteries after hypertension has been established, the pressure promptly falls to normal and remains there. The same thing happens if the ischemic kidney is excised. In the development of their experiments, Goldblatt and his associates found that they could not prevent or reduce this blood pressure in dogs by section of the anterior spinal nerve roots from the sixth thoracic to the second lumbar inclusive, and this observation was developed and confirmed by McCann. From this observation, and supporting testimony, Goldblatt concluded that experimental hypertension from ischemic kidney is not due to any nervous or vasomotor reflex, but rests probably on a humoral basis, resulting from a hypothetical effector substance produced within the kidney itself which causes arteriolar constriction in the body generally. The intensity of this vaso-constriction is on a quantitative basis, proportional to the degree in which the renal arterial circulation is obstructed. The complete, experimentally induced, pathologic picture singularly resembles essential hypertension in man, and this fact has definitely revived our interest in the primary importance of the kidney in the causation of essential hypertension. What may prove to be testimony in favor of this idea is furnished by an accumulating number of cases reported in the literature where elevated blood pressure has been permanently brought down to normal, or nearly normal, by excision of the diseased kidney in unilateral pyelonephritis. Renal ischemia has not been the only experimental means of producing elevated blood pressure. Nowak and Walker report similar results in dogs following carotid sinus denervation and section of the aortic depressor nerve.

**We must take care that we do not succumb as the clinician often has in other connections to the fascination of brilliant experimental results on animals and forthwith to accept them as furnishing satisfactory solution**

**of a difficult problem in clinical medicine. That we must be especially on our guard is indicated by a recent contribution wherein the authors suggest certain criteria for the selection of cases of arterial hypertension suitable for therapeutic nephrectomy. This signifies a dangerous trend that should be discouraged at the start for it indicates that in some quarters at least the perspective is becoming confused.**

We must bear in mind that elevated blood pressure has many causes, some of them well-known. We are familiar, for instance, with its association with nephritis, prostatism, polycystic kidney, with certain vascular diseases such as aortic sclerosis, coarctation of aorta, periarteritis nodosa, with certain derangements within the endocrine system, notably the thyroid, adrenals and pituitary glands. In the main, such significance as Goldblatt's brilliant work may have will be in connection with essential hypertension. If, and when, it shall appear that renal ischaemia and the hypothetical toxin generated thereby constitute the clarifying fact in solving the mystery of this affliction, we shall indeed have completed a wide circle embracing one hundred years since Richard Bright surmised that it was some morbid material resulting from the kidney disease that brought about the cardiac hypertrophy that he noted.

It seems to me perfectly apparent that if there is merit in this developing renal aspect of hypertension, it is confirming a fact that is made clear in the long clinical view: that there is an organic causation to chronic vascular hypertension although it may not be grossly apparent until late in the course of any given case, and this being admitted it is clear that we have paid entirely too much attention to instrumental measurements. These are merely the beginning, not the end, of the study. To place implicit trust in blood pressure readings as the prime factor governing the welfare and outlook of the patient is to court error and misunderstanding. Indeed, it may be said that there are no definite rules whereby we are safe in judging the importance of spontaneous variations in the level of an elevated pressure. There are many variables entering into its rise and fall and a glance over the record of any case routinely observed will show clearly enough that the pressure chart is by no means a plateau, but undulating in the extreme without any coördinate variation in the patient's subjective condition and complaints, so much so, indeed, is this the case, that the physician grows, with experience, to regard the patient's general condition and comfort, the presence or absence of signs of circulatory embarrassment, as constituting a better basis for management and prognosis than any information procurable from blood pressure readings alone.

### Course

Hypertension is a progressive process, but one of the most chronic in its clinical development, certain statistics giving its average known duration as ten years. Two of its leading characteristics are its inveteracy and its variability. Once established, it progresses slowly but with gathering momentum to its final stage of organic break-down, not greatly influenced by anything we can do to modify its course. The clinical characteristics of the untreated disease must be kept in mind while appraising the effect of any method of treatment. This is too rarely taken into account and the failure to do so has led to many therapeutic fiascos in the past. I think that it is not too much to assert that the fervid claims of many enthusiastic therapists could not stand if placed against adequate controls. All but causal therapy is foredoomed to failure and this has not yet been forthcoming. The course of the disease cannot be predicted. The terms benign and malignant are only applicable in retrospect, since there is nothing about its earlier manifestations that stamps the case one way or the other. The factor that determines whether the case is to run a rapid course to early death from renal failure is not the height of the blood pressure, but the rate of progress of renal destruction.

### Prognosis

At this juncture a few words might not be out of place with respect to prognosis. Certain facts or inferences emerge from practical experience with the run of cases of hypertension. For example, it would appear that patients who have a distinct hereditary bias toward vascular pathology usually stand the strain of elevated blood pressure for longer periods than do those without such a background. This is difficult to explain unless it be that certain constitutional

resistances enter into their tissue make-up as a buffer against this inherited liability, or it may be that these individuals develop hypertension earlier in life and more gradually than do others. Another observation common to all experience, is that high blood pressure, developed in association with, or in consequence of, certain other disorders may be viewed with less apprehension than when it emerges as a single symptom. For example, when it occurs in common with diabetes, hyperthyroidism, chronic anemia, uterine fibroids, prostatism, et cetera, it rarely is as severe in its effects and moreover tends to share in the beneficial influence of treatment for control of its associate condition. In passing, it should be noted that exactly the opposite is true when hypertension exists along with nephritis. Another well-tolerated form of hypertension is the high systolic pressure arising as a compensatory response in aortic sclerosis. This is identified by low diastolic, wide pulse, pressure, and dilated aorta in a mature individual, and is compatible with long life and reasonable efficiency. I very frequently see patients with this type of high pressure, worried and made miserable by injudicious therapy in the attempt to get the systolic pressure down to lower levels. Such procedure, if successful, does harm rather than good, but fortunately its effects are so obvious that the attempt is discontinued, usually under a protest from the patient. I get the impression from a review of my experience that what has been called the neurogenic variety of hypertension has a better outlook, although often a more stormy symptomatic course, than is true of other forms. The blood pressure in such instances is particularly unstable, being subject to wide fluctuations, so that there is more occasional easement to the cardiac and vascular strain. These are the patients who derive the greatest benefit from bed-rest and hospitalization. Other things being equal, it is a fact that marked decline in average pressures induced by rest alone, or combined with simple sedatives, foretells a better prognosis. I may refer at this point to the better outlook in women than in men. They live longer and a higher percentage die of causes not connected with their hypertension. This strange fact is not because they do not have pressures as high as men. Perhaps its significance may lie in some resistance-provision in the female circulatory structure inherent in their biology as a survival factor, or in the less strenuous and emotionally less intense life of the average woman compared with the average man. Possibly, another factor may enter into this, and that is the influence of the menopause which slows down so many women in early middle life with benefit to their pressure levels.

### Therapeutic Principles

The prominent place taken by the sphygmomanometer in the observation of these cases has inevitably led to unwarrantable emphasis on blood pressure readings with the result that therapeutic endeavor is predominantly concerned with lowering the pressure. This idea is kept before our attention by clinical research and discussion as if it were the greatest benefit we could confer upon our patients. Furthermore, it is dinned into our ears by the propaganda of commercial pharmaceutical houses exploiting various agents to accomplish this purpose. An amazing illustration of this abuse and the futility of symptomatic therapy is the report by Ayman in 1930, who collected from the literature two hundred therapeutic measures to lower the blood pressure during the decade 1920-30. Since then there have doubtless been as many more advocated with enthusiasm. Comment is unnecessary.

**The treament of hypertension has for its primary object improvement in the capillary circulation so that it may be adequate to the demands of the tissues for oxygen and nutriment and the removal of waste. Regulation of the entire life becomes, therefore, the starting point of treatment. In face of the facts accumulated by experience, about all we can claim is that rational control of the patient's personal hygiene and diet exerts some effect on progression of this malady. Direct attack to lower the pressure has never been successful for long, and is always of questionable benefit to the patient.**

Attempts of this kind that have been even moderately successful have almost invariably been along the line of depletion—a reduction of the body's dynamism. Prolonged rest in bed on a low nutritive diet, repeated therapeutic bleeding, employment of cardio-depressants, low protein and salt-free diets, persistent saline purgation, all belong in this category. Whatever ef-

fect they may exert on the blood pressure proves temporary and adds nothing to the welfare of the patient. Benedict, many years ago, drew attention to the fact that any medicine or procedure that lowered the hemoglobin below 80 per cent of normal could reduce blood pressure and he warned against such practice.

**The latest addition to this form of therapy are the cyanates. I mention them only to condemn them. Because they have not yet been relegated to the obscurity they deserve, but are still advocated in current literature, a brief description of their action and limitations may be given.**

These compounds have been known since the time of Claude Bernard who regarded them as muscle poisons. Their employment in this country was initiated by Westphal who pointed out their ability to lower blood pressure and looked upon this as a secondary effect of their toxic qualities. Most subsequent observers have reported their inability to use the drug in sufficient dosage to secure satisfactory effect without at the same time producing toxic manifestations, the effective therapeutic dose being close to the toxic one. The Council of Pharmacy of the American Medical Association in 1938 thought so little of these agents that they advised against the use of the cyanates, the evidence of their value being more than offset by their inherent dangers. In March, 1939, Garvin collected from the literature eight human fatalities following cyanate therapy and added a case of his own. In his case the administration was controlled by determination of cyanates in the blood, the patient receiving only nine grams of thiocyanate in fifteen days, yet lethal effects developed with fatal termination. Garvin's experience indicates that the blood therapeutic level cannot be completely relied on as a safe criterion because certain individuals are sensitive to the drug and have little, if any, margin of safety in their resistance to its toxic effects. Since such instances of intolerance cannot be recognized in advance, the use of cyanates, even when controlled by blood determination, must be considered dangerous. Even though the drug is stopped when toxic manifestations appear, the toxemia may steadily progress to disaster. Healy reported death in coma nineteen and fourteen days after discontinuance in two cases, Goldring and Chasis six days and two and one-half days after the drug was stopped in two cases. The toxic effects most frequently observed have been dermatoses, hepatitis, psychoses, anemia, cerebral thrombosis, myasthenia, convulsions and coma. Excretion of the drug via the kidneys has been found to vary widely in different individuals. A given dose when renal clearance is rapid may exert no therapeutic effect whereas the same dose in another patient with slower elimination may be effective or even toxic. The therapeutic effects of the drug have been attributed variously to decreased consumption of oxygen by the tissues, to anemia, lowered blood protein, and decreased blood viscosity, all evidences of depletion. Finally, the hypotensive effect is not lasting and a second success after the drug is once discontinued is more difficult to secure and requires larger dosage. My own instinct of conservatism engendered by mistakes of the past has restrained me from employing the drug, but I have observed its effects in the hands of others and have seen two fatalities that I thought were directly attributable to it. It may be effective in lowering the blood pressure, for a time, but in my judgment it does so by subjecting the patient to greater hazards than would probably accrue from his hypertension, and in any sober consideration it violates the Hippocratic injunction to the therapist "primum non nocere," "first, do no harm." Some advocates of this drug have advised its administration after surgical attempts at control of hypertension, when the results of surgery have not been satisfactory. This, it seems to me, is adding insult to injury.

## Surgery

The latest development in the treatment of essential hypertension is a frontal attack by the surgeons. The general futility of medical treatment which is in the main a laissez faire policy made the search for surgical relief altogether natural, especially as there was ready at hand, theoretically at least, an opening offering opportunity to the mechanical approach. As previously noted, we have assumed for lack of a better theory that there is at work in these individuals a morbid vasomotor derangement giving rise to generalized vascular hypertonus. There is some question as to whether this vascular spasticity is inherent in the arterioles themselves or results

from overactivity of sympathetic nerves, but the latter assumption is at the moment generally accepted. Because the blood pressure of certain hypertensive patients could be lowered by producing temporary vasodilation, it followed that permanent vasodilation of certain portions of the vascular system suggested itself as a method of lowering pressure to relieve distressing symptoms and lessen the danger of cardiac and renal failure. This opens the door for the surgeon because there existed plenty of evidence that after their sympathetic nerve supply had been severed, blood vessels tend to dilate and remain less responsive to stimulation. It was found that extensive sympathectomy can be carried out safely without producing any important disability. An extraordinary interest has developed in the surgical treatment of hypertension. There are four schools of thought and practice regarding surgical attack on this problem, i.e., University of Michigan, Cleveland Clinic, Mayo Clinic and the New York Hospital. I am not equipped to describe or discuss the various operative procedures employed or their differences in detail. Suffice it to say that they all hinge upon a common endeavor to release the large abdominal blood vessels from vaso-motor control, thus substituting a permanent vasodilation. The combined statistics from active surgical centers of this work now include well over a thousand cases, operated upon and followed.

**The testimony, in general, is that after surgery the subjective improvement is out of proportion to the fall in blood pressure. This has been especially noted with respect to headache, vertigo, heart consciousness, and precordial distress, and most extraordinary of all a marked improvement in retinal artery changes, hemorrhages and papilledema.**

It is difficult to explain these effects. Peet thinks that the operation is effective by creating a physiologic safety valve that will automatically relieve tension in the peripheral arteries whereas Goldblatt suggests that the beneficial effect noted clinically may result from vasodilation of the renal arterial system, thus relieving ischemia. It is a baffling observation recorded by Flothow who visited and analyzed the work at all the separate surgical clinics that, regardless of what operation had been performed, and they differ in approach and detail, and almost regardless of the selection of cases for surgery, the results have been surprisingly similar in all quarters. A note of scepticism is introduced by Volini and Flaxman, who compared the effect of nonspecific operations such as hysterectomy, prostatectomy, and cholecystectomy on patients with high blood pressure against the results of specific surgical procedures undertaken to lower blood pressure taken from published statistics. They summarize the symptomatic relief and reduction of pressures from the former series as similar to, and often better than, those produced by purposeful specific surgery. There is little question but that this is true and it makes one a bit uneasy about the whole business of surgery for high blood pressure. Most physicians, through whose hands pass many cases of essential hypertension, recall instances of extraordinary symptomatic recovery with years of useful life occurring quite spontaneously or following the simplest measures of treatment in patients apparently very seriously ill. All of the surgeons engaged in this work appear to agree that it is far from being an altogether satisfactory solution of the problem, but so far they are encouraged to go ahead because of the symptomatic relief and improved efficiency they have been able to confer on a certain proportion of their patients. Some of these successes have been dramatic to a degree.

**An extraordinary opposition has been expressed from many medical sources. From some quarters come bitter criticism against the use of surgery—the usual argument being that a treatment so radical as sympathectomy should not be employed for a symptom of which the cause is still unknown. It is noticeable, and this may or may not be significant, that this critical and captious attitude toward surgery is in inverse ratio to the critics' familiarity with the work and its results. Those internists who are in close touch with these activities are the most favorably disposed toward it, and this again may or may not be significant. Surgery undoubtedly has at this date a long way to go to justify itself, but there is every reason why the work should go on.**

Study of the most recent report from the Mayo Clinic group covering the results secured

by sympathectomy in 224 patients leaves one unimpressed. In 27 instances results are reported as "good" but when the pressure readings before and after operation are contrasted, in not more than six of these is the mathematical improvement deserving of emphasis in a condition so variable as essential hypertension. The table, including a group of 41 cases claimed as "fair" improvement, may be dismissed as of uncertain, if any, value whatsoever when compared with routine observations under non-surgical management. It seems to me that the most liberal attitude toward results claimed from surgery will not allow one to accept the surgical score up to the present as impressive from the blood pressure readings before and after operation. One must be pardoned for insisting upon more persuasive testimony than is furnished by this aspect of results because the operation is a specific surgical procedure undertaken to lower blood pressure and consequently must justify itself in that manner. The fact that symptoms are improved temporarily or permanently is, strictly speaking, neither here nor there. In any case, not advanced beyond the point where operation would be feasible, sensory complaints may vary almost from day to day, and not by any means always in proportion to the height of the blood pressure. Relief of symptoms hardly furnishes justification for operation.

Twenty-five years ago, in the *Journal of the American Medical Association,* I outlined the treatment of arterial hypertension according to the best practice of that day. Five years later Moschcowitz reviewed the literature and covered the same ground, bringing it up to that date. A reperusal of these contributions will still furnish one with about all that we at present know regarding well-established practice in handling this problem. Perhaps a pursuance of surgical activity developing further technique and management and establishing suitable criteria for the selection of cases may carry us further towards the goal we are seeking, but at the moment a final commentary on this most important problem is that we have moved forward very little towards its solution in the past forty years. As the matter stands, the argument of experience to the present leads us to the conviction that hypertension is part of a mechanism for compensating visceral deficiency and that rude efforts to reverse blood pressure either by drugs or operation are unphysiologic and disturb some status or equilibrium essential to body well-being. It may still be said that the most important consideration in the management of high blood pressure states is proper regulation of the patient's personal hygiene, somatic and psychic. The gain over excess pressures secured by this means is pure net gain involving no interference with an adjustment we understand very imperfectly.

MSMS

# Chondroma of the Tongue

**By Joseph Johns, M.D.**
**Ionia, Michigan**

JOSEPH JOHNS, M.D.

*M.D., American Medical Missionary College of Chicago, 1910. Associate Surgeon, Clinton Memorial Hospital, St. Johns, Michigan. Member, Michigan State Medical Society.*

CARTILAGINOUS neoplasms appearing in tissues not normally containing cartilage are of very rare occurrence. This type of neoplastic disease mentioned includes the skin of the neck, the tonsils, the thyroid, the salivary and mammary glands, the uterus, the testicles and even intracranial cavity. Skeletal types are by far the most common. The classification of these tumors is not clear as yet, because of the marked variation in both the clinical and pathologic characteristics. Ewing[2] states that "cartilage is essentially an embryonal and transitory tissue, and that cartilage cells, although encased in a firm matrix, have rather active proliferative powers, possesses amœbic properties and are readily subject to metaplastic changes." Pless[3] states that chondromas are common but rarely appear on the tongue; only eight cases have been reported up to 1934. Routier[4] reports a young woman twenty-one years old as a rare example of a benign tumor of the tongue. About four years previously, she noticed a small protuberance on the right edge of the tongue. It gradually increased in size and other nodules appeared. A clinical diagnosis was made of chondroma in spite of the extreme rarity of this type of tumor in the tongue. The diagnosis was confirmed by a histologic examination. The tumor was removed and she made a rapid recovery. Camus and Ertzbischoff,[1] presented a removed benign tu-

mor of the tongue of a woman twenty-one years old. The mass was located at the anterior part of the right edge of the tongue. There was no pain or pressure at any time but there was some disturbance of speech.

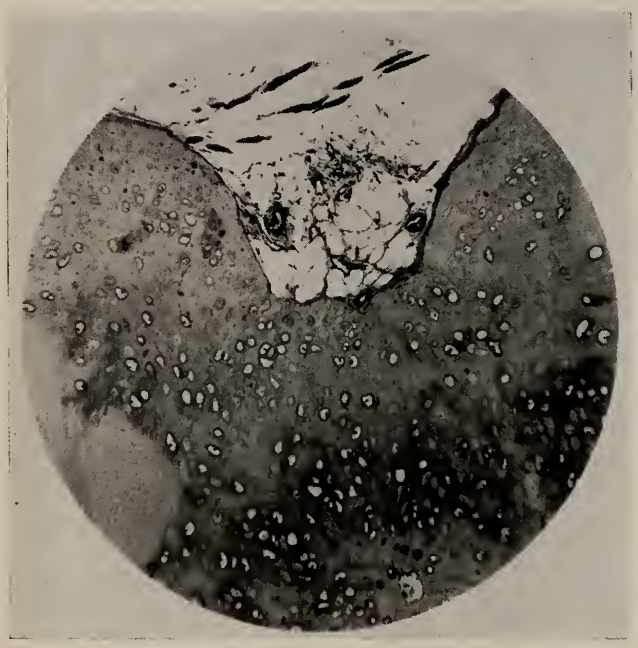


Fig. 1. Postoperative microsection showing the tumor (chondroma of the tongue).

The tumor formed an irregular protrusion about 3x2 cm. and somewhat lobulated. The lingual mucosa was not altered or ulcerated. It was mobile and very hard on palpation.

The tumor was removed and a histologic examination showed that the tumor was a chondroma.

Etiological factors of these growths were attributed to some form of tongue injuries. Chondroma of the tongue being a rare condition, it therefore seems that the following case is of sufficient interest to justify its report.

R. H. first came to my office on June 6, 1940, complaining of fatigue, nervousness, cough and inability to gain weight. He had been raising small portions of grayish sputum chiefly in the morning after rising. Physical examination showed a rather small, thin, white male. Blood pressure was 120/74. There were some dental caries and a few extractions were evident. A firm hard nodule on the right lateral surface of the tongue was noted and the patient stated that this had been present for twenty years. Examination of the chest was negative except for a few very small inconstant râles at the left apex posteriorly. Urinalysis was negative. White blood cells were normal in number and character. The chest radiograph showed no abnormalities except for the presence of a Ghon tubercle in the right mid-lung field.

The second visit of the patient was April 1, 1941. At this time he complained chiefly of swelling of the right side of his tongue which had caused no symptoms for twenty years until two weeks prior to his second office visit, at which time he noticed some tenderness.

Physical findings were unchanged since June 6, 1940. On the right lateral border and anterior third of the tongue there was a 1x1 cm. swelling. This nodule was stony hard and was not fixed to the deep tissue or mucous membranes.

The University Hospital, Ann Arbor, Department of Oral Surgery, made no definite diagnosis but recommended surgical removal of the growth. On April 22, 1941, under local anesthesia the growth was removed. The histologic diagnosis of the University Hospital was as follows: No. 5690AS, Fig. 1. "The specimen consists of a slightly irregular chondroma surrounded by adipose tissue and skeletal muscle. The skeletal muscle appears to be stretched around the chondroma."

## Summary and Conclusion

1. Evidence has been presented to permit the reasonable conclusion that neoplasms of the tongue are common, but that the cartilaginous type is very rare.
2. The cartilage cells have rather active proliferative powers, possess amœboid properties and are readily subject to metaplastic changes.
3. Etiological factors of tongue tumors are unknown but tongue injuries are predisposing causes.
4. In this case the tumor caused no symptoms over twenty years.
5. Removal of the cartilaginous tumor in most cases gives complete cure.

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**BULLETIN ON FOODS**

Beta Sigma Phi fraternity, an organization of students who have received their master degrees from Wayne University, is donating $125 to the University this year. This money is to be used in the publication of the bulletin "Food for the Family in Wartime" under the joint authorship of Dr. Arthur H. Smith of the College of Medicine, and Dr. Lillian Meyer of the Home Economics Department, announced Dr. William H. Pyle, Director of the Graduate School.

# Is There a Clinical Syndrome Characteristic of Hypertrophic Gastritis?*

By H. M. Pollard, M.D., and R.R. Cooper, M.D.
Ann Arbor, Michigan

H. M. Pollard, M.D.
*M.D., University of Michigan, 1931. M.S., University of Michigan, 1938. Assistant Professor of Internal Medicine, University of Michigan Medical School. Fellow, American College of Physicians. Member, Central Society for Clinical Research; American Gastroscopic Club; Michigan State Medical Society. Associate member, American Gastroenterological Association.*

R. R. Cooper, M.D.
*A.B., University of Michigan, 1934, M.D., University of Michigan, 1937. Instructor of Internal Medicine, University Hospital, University of Michigan. Associate member, American College of Physicians. Member, Michigan State Medical Society.*

■ Nearly 25 per cent of a group of 800 gastroscopies peformed at the University Hospital during the past two years have revealed the typical[7] morphological characteristics of hypertrophic gastritis. Of this group with hypertrophic gastritis we have selected and analyzed the clinical findings in fifty who were entirely free of any other evidence of organic disease. This has been done in an effort to determine whether or not there is any consistent clinical picture that occurs as a result of this disease in the stomach.

Eusterman[2] has recently reported that ulcer symptoms predominate in all forms of gastritis including hypertrophic. Furthermore, Rivers and Smith[4] have emphasized the similarity between ulcer symptoms and those found in hypertrophic gastritis. Schindler, Ortmeyer and Renshaw[8] list the symptoms in twenty-three cases of hypertrophic gastritis combined with twelve cases of superficial gastritis. Their description includes nearly all forms of indigestion, occurring with and without relation to meals, and with and without relation to the ingestion of food. Night pains were frequent, vomiting was rare, and loss of weight was common. Their group showed a preponderance of males, and the distribution was in all ages but the greatest incidence was in older persons. The only physical finding common to the majority was an epigastric or para-umbilical tenderness. Their conclusion was that there was nothing in the picture that clearly differentiated the history of hypertrophic gastritis from that of other lesions of the stomach.

In arriving at our diagnosis of hypertrophic gastritis in this group of fifty patients we have included only those individuals whose gastric mucosa showed the typical cobblestone[7] or "orange-peel" appearing areas. Other associated findings have included enlarged and hypertrophied rugal folds, dull orange-red color with diminished highlights, excess amount of mucus adhering to the mucous membrane, superficial erosions, and occasional fresh hemorrhagic areas. We have taken care also to avoid the pitfall recently mentioned by Ruffin and Brown,[5] whereby areas considered to be hypertrophic may be obliterated by increasing the intragastric pressure with air. It should be mentioned also that our observations with the gastroscope have been made in every instance by one of the authors (H.M.P.) and checked often by several other observers present at the examination.

## Analysis of Clinical Material

The analysis of the clinical material has included a careful summary of all the patients' symptoms and results of the complete physical examination in addition to the gastro-intestinal x-rays, gastric analysis, and stool examination for occult blood.

TABLE I. CHIEF COMPLAINTS

| | |
|---|---|
| Burning epigastric pain | 52% |
| Epigastric fullness | 16% |
| Dull epigastric pain | 14% |
| Substernal burning | 12% |
| Vomiting | 6% |
| Right upper quadrant pain | 6% |
| Gnawing epigastric pain | 4% |
| Para-umbilical pain | 2% |
| Severe sharp epigastric pain | 2% |

TABLE II. SYMPTOMS

| | |
|---|---|
| Abdominal pain | 88% |
| Ructus | 52% |
| Nausea | 50% |
| Vomiting | 32% |
| Nocturnal pain | 32% |
| Substernal burning | 30% |
| Hematemesis | 24% |
| Tarry stools | 20% |
| Anorexia | 16% |

## Symptomatology

Table I indicates that almost every one of these patients presented as the chief complaint some form of epigastric pain or full sensation. The

*From the Department of Internal Medicine, University Hospital, University of Michigan, Ann Arbor.

TABLE III. TIME OF ONSET OF PAIN

| | |
|---|---|
| One to two hours Pc. | 32% |
| Immediately Pc. | 22% |
| "After meals" | 8% |
| Not related to meals | 16% |
| "Before meals" | 12% |
| Constant | 2% |

most common localizing complaint of all was an epigastric burning sensation which was found in over half of the entire group. A detailed analysis of all their symptoms as noted in Table II reveals that abdominal pain was present in 88 per cent of the group. The time of onset of this abdominal pain as noted in Table III was immediately after eating in 22 per cent, and one to two hours after eating in 32 per cent. Interestingly enough, 16 per cent of these patients reported that they did not notice any relation of their pain to the ingestion of food.

TABLE IV. CAUSATIVE AGENTS OF PAIN

| | |
|---|---|
| Fatty and fried foods | 14% |
| Exertion | 10% |
| Alcohol | 8% |
| Emotional upset | 8% |
| Citrus fruits | 4% |
| Tomatoes | 4% |
| "Coarse foods" | 2% |
| Pickles | 2% |
| Rapid intake of water | 2% |

## Causative Agents

Various articles of food were described as causative agents of the abdominal pain, but no one item seemed very consistent. The different articles mentioned included fatty and fried foods 14 per cent, alcohol 8 per cent, citrus fruits 4 per cent, and tomatoes 4 per cent. The response which these individuals noted from the ingestion of food and alkalis revealed the following:

| | Alkali | Food |
|---|---|---|
| Good relief | 28% | 30% |
| Partial relief | 30 | 22 |
| No relief | 14 | 16 |

## Physical Examination

The results of the physical examination revealed, as pointed out by Schindler, et al.,[8] that 62 per cent have a definite epigastric tenderness, but in our group 32 per cent had no tenderness whatsoever.

TABLE V. PHYSICAL EXAMINATION

| | |
|---|---|
| Epigastric tenderness | 62% |
| Negative | 32% |
| Resistance in epigastrium | 6% |
| Schindler's sign | 2% |
| Spastic colon | 6% |
| Succession splash | 2% |

The sex ratio of our group of 78 per cent males and 22 per cent females which corresponds moderately well to the ratio of men to women as mentioned by Schindler.[7]

## Laboratory Examination

Gastro-intestinal x-rays and cholecystograms were obtained in every case and were reported as entirely negative in forty-six of the group of fifty patients. A prominent rugal pattern or enlarged muscular folds was mentioned in only one case, and the three others with abnormal findings showed some delayed emptying time or retention at the end of five hours with no other evidence of gastric or duodenal pathologic changes.

Stool examinations were performed in twelve of our cases and the Guaiac reaction, indicating the presence of significant occult blood in the stool, was positive in two-thirds of these patients.

The average age of our fifty patients was 37.1 in the males with a range of eighteen to sixty, and in the females, 41.2 with a range of seventeen to fifty-four. The average weight loss for the group was 14.5 pounds, and the average duration of symptoms was 5.9 years.

Thirty-six patients of the fifty had a gastric analysis, using histamine acid phosphate, 0.5 mgm. subcutaneously, in order to stimulate gastric secretion and acidity. Twenty-one (58 per cent) of the group of thirty-six showed a maximum free hydrochloric acid, sometime during the test, of over 50 degrees, and thirteen of these twenty-one reached over 80 degrees of free acid. Although 56 per cent of the total group showed no free acid in the fasting specimen, none of the thirty-six on whom we had a gastric analysis showed a complete achlorhydria throughout all specimens of the test.

## Comments on Treatment

Since the etiology of this disease is not known, the treatment must of necessity be empirical. All authors seem to agree that a bland diet is important and many advocate the use of aluminum hydroxide, even though the acidity is low, for its demulcent effect. Silver therapy has been used at times either in the form of silver proteinate in a 2 per cent solution given three times daily before meals, or in the form of lavages with silver nitrate in 1:1500 to 1:3500 dilutions. This is preceded by a tap water lavage followed

by a saline lavage, and is done on consecutive mornings in the fasting state. Schindler[6] has reported one case of hypertrophic gastritis treated with roentgen therapy, in which there developed at first a normal appearing mucosa with loss of previous symptoms; later an atrophic gastritis appeared at which time the patient again developed gas and eructation, while remaining free of pain.

We have chosen to treat the majority of our patients on a so-called modified ulcer regime, consisting mainly of a bland type of diet with frequent feedings, some form of antacid, and vitamin supplements when indicated. Two patients of this group were treated with deep x-ray therapy over the acid-bearing area of the stomach, following the plan outlined by Palmer[3] for peptic ulcer. The results were highly beneficial symptomatically, there being an improvement in the appearance of the gastric mucosa in subsequent gastroscopic examinations and also a reduction in the gastric acidity. We are continuing to treat additional patients with hypertrophic gastritis by the use of x-ray therapy since it seems more logical than anything yet proposed. This form of therapy, however, is still in the experimental stage and its use cannot be recommended indiscriminately.

## Summary

We undertook this study with the belief that a rather definite clinical picture could be established as characteristic of hypertrophic gastritis. The features which are commonly present and serve to direct attention to this diagnosis consist of a burning sensation or discomfort in the epigastrium. This may appear just before or immediately after eating a meal, or may even be delayed one to two hours, and the discomfort is at times relieved by food or soda. It is common to find free acid in the gastric contents in normal or increased amounts, and uncommon for the roentgenogram to reveal any significant change. As in other gastric lesions, the disease is more prevalent in men than women, but is not confined to any particular age group.

With such a variable picture as described above it becomes evident that although the diagnosis of hypertrophic gastritis may be suspected from the history, gastric analysis, and lack of x-ray findings, in the last analysis the diagnosis is dependent upon direct observation of the gastric mucous membrane by means of the gastroscope.

We believe that the diagnosis is important since hypertrophic gastritis is a definite organic disease. It is not infrequently the explanation of symptoms in patients with gastric complaints and whose x-rays are negative. In addition, hypertrophic gastritis may be the cause of a small or massive gastric hemorrhage,[1] and as evidenced by our own results it may be the explanation of significant occult blood in the stool.

## Conclusions

1. Fifty patients who were diagnosed as having hypertrophic gastritis by gastroscopy and were free of any other recognized disease, have been analyzed.

2. Our group consisted of middle-aged persons, the average age for males being 37.1 and for females 42.3. The ratio of males to females was 3.5:1.

3. Prominent rugal folds were demonstrated by x-ray in only one case.

4. The gastric analysis showed a maximum free acidity of over 50 degrees in 58 per cent of the cases, and eighteen of these reached over 80 degrees. None of our patients showed an achlorhydria in all specimens of the gastric analysis.

5. We believe that hypertrophic gastritis *per se* can be the sole cause of gastric symptoms and deserves consideration in a differential diagnosis of gastric disease.

6. No characteristic clinical syndrome is typical of hypertrophic gastritis. The diagnosis must be made by exclusion and finally by means of the gastroscope.

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# Tularemia, Endemic in Southern Michigan

By Edward P. Cawley, M.D.
Jackson, Michigan

EDWARD PHILIP CAWLEY, M.D.

*A.B., University of Michigan 1936. M.D., University of Michigan, 1940. Resident, Mercy Hospital, Jackson, Michigan.*

■ TULAREMIA is assuming added importance in Michigan each year because of the increasing incidence of the disease.

## General Considerations

*Classification.*—The ulceroglandular variety while being the type most frequently encountered in this state, as in other localities, is only one of the four varieties composing Francis' classification, the others being the oculoglandular, the glandular and the typhoidal types.

*Epidemiology.*—This disease is usually transmitted to man through contamination with infected animals, most frequently wild rabbits, although there are many cases on record of transmission of tularemia to humans by the bite of the deer fly, Hillman and Morgan[2] having reported twenty-seven cases among boys in a CCC camp where the primary sores occurred almost exclusively about the back and shoulders, and where the source of infection was known to have been the bites of deer flies. It is generally agreed that transmission from one human to another is quite rare. A point stressed by several observers is that refrigeration of infected tissues for several days does not destroy the viability of Pasteurella tularensis, and Francis has shown that incomplete cooking also does not destroy the organism. One attack of this disease apparently confers an immunity to future infections with Pasteurella tularensis.

*Diagnosis.*—Tularemia, especially the typhoidal type, may masquerade under such a variety of signs and symptoms that the diagnosis becomes extremely difficult. Probably the best known and most widely employed diagnostic aid is the agglutination test, although, as Moss and Weilbaecher[4] bring out in an excellent paper, this test is of little value until after the tenth day of the infection because of the absence of agglutinins in the blood. In their hands animal inoculation has proved a very satisfactory method of diagnosing tularemia, and is the only reliable laboratory method in the early stages of the disease. A negative agglutination test despite a severe tularemic infection is not a rarity.[4] Diagnosis of the most frequently encountered type of tularemia, the ulceroglandular, is usually not difficult if the disease is kept in mind during the hunting season when one is confronted with a patient presenting indolent, furuncle-like lesions, usually about the hands, and a clinical picture which may simulate many other diseases but usually includes weakness, chills and fever, generalized aches and pains, drenching night sweats for longer or shorter periods of time, and painful, tender regional adenopathy. Less common but nevertheless frequent findings are delirium, epistaxis, and conjunctivitis. Cutaneous manifestations are commonly seen and may be of a great variety.[3] In the outbreak to be described subsequently, almost all patients stated that during the early phases of the disease they thought that they were getting the "flu."

*Treatment.*—Since the advent of the sulfonamides as chemotherapeutic aids there have been several reports in the literature of cases of tularemia successfully treated with these drugs. Foshay,[1] in a series of 600 cases of tularemia treated with anti-tularemic serum, reported a mortality of 2.2 per cent in contrast to the usual figures which are given as 3 to 6 per cent. He also noted a reduction in the severity and duration of the disease. Most writers agree that the primary sore should not be incised and the regional buboes should be incised only when softening has occurred, because of the danger of disseminating the disease. Bed rest and symptomatic treatment are an important adjunct in the therapy of all cases of tularemia.

## Local Endemic Experience

In a recent outbreak of tularemia in Michigan there were ten proved cases of the disease within ten miles of Jackson. Each of these patients had the ulceroglandular variety and each gave a history of dressing or handling wild rabbits, but there were several instances in which other members of the family, who admittedly handled the same rabbits, and apparently under the same con-

ditions, did not develop the disease. All of the patients in this series had one or more indolent, ulcerative lesions about the fingers or hands, and all had painful, tender, regional adenopathy, but only one had a generalized lymphadenopathy. Chills, fever, night sweats and weakness were complained of by all. Three had cutaneous eruptions: in a fourteen-year-old boy this consisted of erythema nodosum, while a thirty-year-old female had a papular erythema multiforme involving the face, hands, arms and feet. A seventeen-year-old boy had a papular erythema multiforme involving the arms and legs. One boy had frequent nose bleeds and a moderately severe conjunctivitis. The agglutination test for P. tularensis was positive in all cases. There were no other significant laboratory findings in any instance, a slight leukocytosis being the general rule. Several of these patients were treated with drugs of the sulfonamide group, no spectacular therapeutic results being observed. Of the drugs employed, sulfathiazole seemed most effective, producing more clinical improvement than either sulfadiazine, sulfaguanidine or sulfapyridine. Suppurating axillary adenopathies were incised and drained in two cases when they began to soften and break down, and in one of these there was marked clinical improvement following this procedure. There were no fatalities among the ten cases.

## Typical Case Histories

L. S., a white female, aged thirty, cleaned two wild rabbits on October 15. Four days later two indolent, ulcerative lesions developed on the middle finger of the right hand. Shortly before admission to the hospital on October 31 she noticed a painful, tender mass in the right axilla, and an asymptomatic cutaneous eruption. During the interim from October 15 to October 31 she had had chills and fever, frequent night sweats, and had been extremely weak. Physical examination at the time of admission demonstrated the two ulcers of the finger, both fairly well healed, a tender, fluctuant mass about the size of a hen's egg in the right axilla, and a papular erythema multiforme involving the face, hands, arms and feet. The patient's temperature was 102° and she appeared acutely ill. The agglutination for P. tularensis was positive in a dilution of 1:520 and the leukocyte count was 13,000. She was given 45 grains of sulfapyridine each twenty-four hours for the next four days and the suppurating axillary bubo became soft and fluctuant and was incised and drained. Other than this the treatment was symptomatic. Histological examination of the necrotic lymph node showed a chronic infectious granuloma with all the morphological characteristics of tularemia. During her six days in the hospital this patient's temperature gradually dropped to 99° and she felt much better. When seen about a month later she was up and around, but still very weak.

L. W., a white male, aged seventeen, also cleaned rabbits on October 15. Three days later he noticed what he believed to be a "boil" on the ring finger of his left hand. About this same time he began to have severe headaches, generalized aches and pains, and nausea and vomiting. His parents thought that he was getting the "flu." A few days after the appearance of the initial sore, a painful mass developed in the left axilla. The headaches, generalized aches and pains, and nausea persisted up to the time of admission to the hospital on November 3, and for three days previous to admission he had been having chills and fever. Examination upon admission revealed a punched out, furuncle-like nodule on the ring finger of the left hand, and a solitary, tender, walnut-size lymph node of the left axilla. The temperature was 100.2°. The agglutination for P. tularensis was positive in a dilution of 1:5120 and the leukocyte count was 9,900. This boy received 90 grains of sulfadiazine each twenty-four hours for the next four days, at the end of which time his temperature was 99° and he was improved clinically. Seen about a month later he stated that he still had occasional chills and spent part of each day in bed because of excessive weakness.

## Summary

A localized outbreak of ten cases of tularemia, each giving a history of handling wild rabbits, is described, with a brief discussion of the clinical and laboratory findings.

Diagnosis of the ulceroglandular variety of tularemia is usually not difficult if one keeps the disease in mind as a likely possibility in a patient presenting indolent, ulcerated lesions about the hands, with regional adenopathy, systemic symptoms, and a history of handling wild rabbits. It should be remembered that the agglutination test is occasionally negative even with a severe infection.

Treatment of tularemia with the sulfonamides demonstrated that these drugs are helpful in shortening the acute phase of the disease, but even in the cases where they were employed over a period of several weeks there was no appreciable diminution in the later manifestations of the disease as compared with those patients who either were not given the sulfonamides, or who received these drugs over a period of a few days only. Of the sulfonamides used (sulfapyridine, sulfathiazole, sulfadiazine and sulfaguanidine), sulfathiazole seemed to produce the most clinical improvement. Theoretically, it would seem that

a combination of treatment with Foshay's antitularemic serum and the sulfonamides would be a very effective therapeutic measure in this disease.

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# Focal Infection in the Nose and Throat

## Retrospect and Forecast*

**By D. E. Staunton Wishart, M.D.**
**Surgeon-in-Chief, Department of Otolaryngology, Hospital for Sick Children**
**Toronto, Ontario, Canada**

D. E. Staunton Wishart, M.D.

*B.A., 1909, M.D., University of Toronto, 1915.*
*Three years' service in the field with the 10th (Irish) Division. Mediterranean Expeditionary Force—Sulva Bay, Serbia, Struma Valley and Palestine. Surgeon-in-Chief, Department of Otolaryngology, Hospital for Sick Children, Toronto, and Senior Demonstrator, Department of Otolaryngology, University of Toronto. Author of: Section on Surgery of the Ear, Lewis' System of Surgery; Relation of Infection of the Ear and Infection of the Intestinal Tract in Infants, Results of Five Years' Study—Routine Hearing Tests, and many other scientific articles.*

■ The great concept of focal infection which permeated Medicine twenty-five years ago was a sound and important development. It has been misunderstood and misinterpreted and overemphasized generally but especially in otolaryngology.

The term "Focal Infection" was coined by Hunter in England to indicate the causal relationship thought to exist between infections of the teeth, tonsils, nasal sinuses, appendix, gall bladder et al. and various general systemic diseases of unknown origin. In America the idea was popularized by Billings of Chicago. The original idea spread like wild fire. Few ideas in medicine have dominated medicine so rapidly and so completely. It is now a name which means something to every member of the community. It forms the subject matter of one of the first few chapters of every important system of medicine in the country. So plausible has been the theory, so many proofs seemed to have been adduced of its truth that today the concept of focal infection in relation to systemic diseases is firmly established in the minds of vast numbers of the profession and of the public.

What is this popular concept? No less than all or nearly all diseases of questionable or unknown origin are caused simply by focal infection of dental or tonsillar origin.

Some of you, no doubt, consider this appraisal too extreme. To prove to you that I am stating a fact I will quote from the concluding paragraph of one of the most recent works on focal infection by a responsible authority.

> "You cannot mean it has been asked of us, that only infection is responsible for all heart disease, the blue-sky nephritides, the ulcerations of the gastro-intestinal tract not due to immediate injury . . . every acute or chronic appendicitis . . . cholecystitis, iritis, glaucoma . . . cystitis, prostatitis . . . was induced because of metastatic blood-borne infections? that similar mechanisms must be called to mind in half the eczemas and all the dysendocrinisms and diseases of the mind not 'inherited'? and that arrest of existent, or freedom from future and renewed attack is assured only by the discovery and surgical eradication of a focus nearly always resident in tooth (or tonsil)? These questions need diplomatic answer. We quote the words of an international document: That, gentlemen is exactly what we mean."[4]

Granted that this is an expression of the concept in its most extreme form—still it is representative of the misconceptions regarding the theory of focal infection and its application which are current.

**Medicine is not an exact science. Once upon a time everyone was purged—then everyone was bled—later everyone was cupped—later still everyone was filled with the essential minerals—recently everyone was robbed of his tonsils—still more recently everyone is being dosed with vitamins—and now everyone is being given one of the sulfonamides. The tend-**

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**ency has always been to use the popular remedy—whatever it may be, instead of ferreting out the cause.**

**The truth regarding health and disease still defies settlement. Medicine is like an invincible army proceeding against a desperate implacable surprising enemy. Medicine marches, sometimes brilliantly advancing, sometimes precipitously retreating, but, in general, slowly but surely onwards.**

This fluctuating but advancing character is found in the idea of focal infection. Each of you can verify this for himself by comparing the chapter on focal infection written for the original edition of Oxford Medicine by Frank Billings[1] about twenty-five years ago with that of the present edition by Ernest C. D. Irons.[7]

The original conception was that a great many systemic diseases had been proven beyond doubt to be due to a focus of infection. The proofs were experimental and pragmatic. Rosenow's work must not be forgotten. Infections from patients injected into the veins of animals had produced in the animal the same infection in the same organ or tissue which had been found in the patient. Brilliant clinical results, such as the permanent recovery of patients with infectious arthritis had followed the discovery and removal of alveolar abscesses or chronic tonsillar infections.

The past twenty-five years have allowed time for the acccumulation of more reliable experimental and clinical evidence. This will be briefly commented upon. But these years witnessed among other things, ruthless excesses in the extraction of teeth and the removal of tonsils and in general an over-emphasis of the concept of focal infection which threatened, for a time, seriously to discredit a sound and important development in medicine.[7] Focal infection formed a happy hunting ground for the poor clinician.

Dissatisfaction with the hypothesis of focal infection has been increasing for many years. Criticism of it has come from both the laboratory and clinical sides. In 1928[5] and again, in 1936, Holman[6] made critical appraisals of the academic and experimental evidence for and against it which have become works of reference and from which I have paraphrased much. He stressed the point that metastasis was not the only factor in the incidence of disease. He takes the stand that infected foci are of significance in very many instances and that in an otherwise perfectly healthy body infected foci cannot be the sole agent in the long list of disease processes in which they are supposed to play a part. The essential point is that an infected focus indicates that for some reason or other an earlier active infection has been incompletely cured and tells us that all is not well with the resistance of the body.

**There are normally lots of foci of infection in all of us. Transient bacteremia frequently occurs. Metastatic infection is constantly occurring. But few of these become manifest or give trouble in the normal individual. Why? Because the metastatic infection dies where it lights—due to adequate local resistance.**

But it is to sound clinical observation tested over the years, that medicine has to trust for its ultimate faith. Many are the fine clinical papers reappraising the hypothesis. One of the most representative of these is by Cecil of New York.[2] He contrasts his staunch advocacy of focal infection in his younger days—and the evidence which compelled it—with his knowledge after twenty years of experience. His early belief was that focal infection was a very important part of the etiology and treatment of rheumatoid arthritis. His present belief, from the careful study of another 200 typical cases, is that rheumatoid arthritis is not primarily a disease of focal infection. He has not abandoned focal infection entirely—he has become more conservative. He still believes that in certain instances focal infection is of importance and in occasional situations of great importance.

The present state of our knowledge regarding focal infection has been dispassionately investigated by Reimann and Havens.[8] Their conclusions are as follows:

1. The theory of focal infection in the sense of the term used has not been proved.
2. The infected agents involved are unknown.
3. Large groups of persons whose tonsils are present are no worse than those whose tonsils are out.
4. Patients whose teeth or tonsils are removed often continue to suffer from the original disease for which they were removed.
5. Beneficial effects can seldom be ascribed to surgical procedures alone.

6. Beneficial effects which occasionally occur after surgical measures are often outweighed by harmful effects or no effect at all.
7. Many suggested foci of infection heal after recovery from systemic disease or when the general health is improved with hygienic and dietary measures.

The rhinologist has been vitally concerned in this problem of focal infection. He has been held responsible for the discovery and treatment of foci in the upper respiratory tract. The internist has forced him to be too zealous in his surgical measures. The craving for remedy new or novel has warped the judgment of many level-headed physicians. The public likes new stunts. At present the rhinologist and his medical and surgical confrères are dissatisfied. The dissatisfaction centers about the sinuses and the tonsils.

### Sinusitis and Chronic Ailments

The theory has been so plausible that the rhinologist has temporized as long as possible with the evidence plainly in front of him in the sinuses. Pus in a nasal accessory sinus is as different from an abscess as day is from night—and yet this fact has been and is constantly overlooked by medical man and surgeon alike. Pus in a sinus is pus held within rigid bony walls. The cavity can be drained but it cannot be collapsed. For this reason infection in sinuses is not cured unless by the patient's natural resistance.

The larger and larger one's clinical experience the more one becomes cognizant of the prevalence of acute and chronic infection in sinuses. One gains the impression that but few patients suffering from infected sinuses have chronic ailments which might be considered as coming from foci of infection. I invariably inquire regarding the presence or absence of heart trouble, kidney trouble and rheumatism. In hundreds of cases of empyema of the sinuses I have rarely encountered a history of systemic disease—affections of the bronchial tree excluded—which might be due to the sinusitis.

The problem of the relationship between sinusitis and arthritis has been well appraised by Williams and Slocum of the Mayo Clinic.[10] Although in an unselected group of 100 cases of infectious arthritis twenty cases of clinically proved sinus disease were found, the results experienced by the twelve patients who were operated on do not support the conclusion that sinusitis is the principal focus of infection in cases of infectious arthritis. If disease of the sinuses is found, an attempt should be made to eradicate it, but too optimistic an outlook as to the results of this type of therapy should be avoided. It would seem to be definitely an error however, to assume that the sinuses can be ignored as possible foci of infection in cases of infectious arthritis.

**In regard to sinus infection the medical man is hopelessly in the dark. The rhinologist is painfully aware of this. He sees many a case of ethmoiditis or nasal polypi which has been overlooked completely for a long time or treated as allergy by the medical man. The rhinologist also sees patients in whom the medical man insists that sinus trouble exists because of a slight anterior or posterior nasal moisture. The nose and throat are the physiological windows of the body—and yet they are completely neglected in the study of disease—and consequently the rhinological side of medical conditions remains unwritten. The cause of this unhappy state of affairs is the unwillingness of our professors of medicine to make skilled use of the head-mirror a *sine qua non* of graduation in medicine. Until it is, the medical man is completely at the mercy of the rhinologist.**

But do not forget that there is a degree of disease in a sinus where the decision to operate is the decision of the rhinologist and his responsibility alone.

Recurring nasopharyngitis is a common ailment of every period of life and its cause defies the physician for the same reason. It arouses or is caused by infection or irritation of islands of lymphoid tissue. The most perfect adenoidectomy will not eradicate these for the simple reason that lymphoid tissue is an integral part of the mucosa of the nasopharynx. Each of these is a possible focus of infection but it is no more possible to totally extirpate these than it is to obliterate every possible bit of sinus mucosa which might be a spot of lowered resistance to infection.

### The Tonsil

It is otherwise with the tonsil which the physician thinks he can examine. Many are unable to examine a throat without making redness appear on the anterior faucial pillar—and this redness is apt to be interpreted as an inflammatory reaction.

The condition of a throat cannot be properly appraised by the use of a wooden throat stick and a flash light.

The result has been the widespread condemnation of the tonsil. The removal of fancied foci of infection in tonsils is recommended as cure and as prophylaxis. To thousands of patients tonsillectomy has been followed by great improvement in health—but every physician knows of many instances in which it has not.

Now the point must be settled as to when a tonsil is or is not a focus of infection. It is not what a tonsil looks like but what it does that matters—and it can be taken for granted that recurring attacks of tonsillitis or swelling of the tonsillar cervical lymph nodes are important indications for tonsillectomy.

Knowledge regarding an organ or tissue is based upon histology, physiology and pathology. The tonsil is almost completely neglected in the teaching of physiology. Its possible functions are at best glossed over as of little or no importance. The student does not know whether the tonsil is an organ of importance or a misconceived bit of human architecture. *The normal histology of the tonsil is taught but is at best surmised: for no pair of tonsils has been preserved and exhibited as being without pathological change.*

The histopathology of the tonsil has been much studied—notably at Johns Hopkins Hospital—and the reader is specially referred to two papers by S. J. Crowe.[3,9] The illustrations are excellent and the text clear and logical. The composite drawing of the tonsil and blood supply of a crypt shows an amazingly intricate structure. Perusal of this drawing is recommended to every physician who has not seen it. Contemplation of this picture alone ought to convince the most doubting that the tonsil must have a function. However, this is not my point.

The article states that the pathology of chronic tonsillitis is, commonly, destruction by ulceration of the epithelial lining of a crypt and an accompanying thrombosis of large numbers of blood-vessels, which can thus afford a pathway for the entrance of bacteria into the blood stream. The normal epithelium in tubular areas is continually being shed and then renewed. Clumps of desquamated cells are easily expressed from straight tubules but in tortuous ones nature has to exert greater effort. The contents of tonsil crypts may be due to the pathological process of ulceration, but is much more likely to be just debris from physiological activity. To medicine, in general, the most important part of Crowe's paper is the clinical history accompanying the final illustration: *local ulceration in a crypt of a tonsil wash found in the complete absence of clinical symptoms or signs of tonsillitis:* the tonsil was removed because of infectious arthritis and because no other focus of infection could be found.

This article is signalled out because of the reliability of the source. That article alone justifies a medical man in the belief that chronic infection, or a definite focus of infection may exist in a tonsil in the complete absence of clinical symptoms or signs. That article may be taken as justification for the wholesale removal of tonsils by that type of medical man who tells his laryngological confrère that he can no better decide by looking at it, whether a tonsil is diseased. But while the one examines it critically, the other only gets a peep when the patient gags!

**Before making that important conclusion again peruse the article and you will discover the words "no other focus of infection could be found." Because of the source I believe those words. They place the responsibility right where it belongs, namely on the physician-in-charge. Too often there has been abuse of the rhinologist if tonsillectomy has failed to cure the condition which the physician said it would cure. It is the physician-in-charge who must decide that the disease has its origin in a septic focus. It is he who must weigh the relative merits of alternative foci. The onus is on the physician-in-charge: that is my point.**

Those otolaryngologists who work routinely in a large out-patient clinic of children and who also have a large private practice see two markedly contrasting pictures.

First take the picture presented by the clinic. Huge numbers of children are referred for tonsillectomy. The better the reputation of the clinic the more it is thronged by parents who ask that their children be granted the boon of the operation. The mother has been told that her child's tonsils are enlarged and thinks that enlargement means disease. It was long ago forgotten that lymphoid tissue when physiologically active enjoys an increased blood supply and this must be accompanied by redness and swelling.

Someone has told the parent that the child's tonsils are diseased—someone, as often as not, a lay person—the school nurse, school teacher or even minister. It matters not who made the statement—the evil seed has been sown—and brave is the specialist who says the tonsil is not diseased. It takes great care in questioning of the parent and much time in putting down the reasons on the out-patient record to allow the specialist to take a stand against tonsillectomy in any particular case. The result is that such a course is rarely taken. Tonsillectomy is advised nearly always and the cases are labelled "very soon," "as soon as possible," "within reasonable time" or some other grouping which puts off the operation to a remote time—perhaps never.

The more necessitous cases receive operation. But nowhere in democratic countries have arrangements been made whereby *all* the children of large cities can receive operation. Every large clinic of my acquaintance has thousands of children on its operating list. The vast majority of these never are operated upon.

If this state of affairs were productive of harmful results popular clamor would result in the establishment of great municipal operating centers where tonsillectomy would be performed wholesale and those in attendance would be paid by the municipality. The great city of London, England, has centers of this sort but it is not maintained that more than a small fraction of the children receive attention.

Why have not greater attempts been made in this direction? Because in thousands of cases relatively little harm results from the apparent failure to perform tonsillectomy. Possibly more harm and greater abuses would result from widespread adoption of universal tonsillectomy in children.

Among a small proportion of the cases awaiting operation harmful effects from tonsils may develop. These cases are promptly spotted by some family physician or by some hospital service and the remedy quickly provided.

The majority of these waiting cases are children in poor physical condition, undernourished, undersized, poor color, subject to frequent head colds. The majority, while on the waiting list, continue attending the medical clinic and there correction is made, as far as possible, of defects in diet and such advice is given as results in better attention to the child in its home. It is a matter of common knowledge that thousands of these waiting cases improve so much from medical guidance alone that they disappear from attendance at any hospital.

Some parents are aggrieved that their child has been denied the supposed benefit of operation and because of their importunity get the operation performed somewhere, somehow and not always to the ultimate good of the child. Other parents are more rational and perceive that time has proven that the fancied necessity for operation was only a fancy.

**Then there is the picture presented by private practice. Here the problem touches the rhinologist differently. In a large number of instances he is treated as a mere mechanic. The family physician or pediatrician advises tonsillectomy and adenoidectomy and makes all the arrangements. The specialist merely operates and attends during post-operative recovery. The specialist operates or demurs according to his trust in his confrère. But the onus for operation lies upon the physician-in-charge.**

In other instances the advice of the specialist is sought before tonsillectomy and adenoidectomy are decided upon. It is here we must be on our guard. The specialist who becomes a mere mechanic or mere yes-man to the physician will deserve the contempt and opprobium he will receive. The more he neglects the medical side of his work the more he pushes himself down. Admitted that it is easier and much quicker to operate than to take careful history and perform adequate examination and follow this with carefully considered advice. But unfortunately some of the best medical men do not desire that their otolaryngological confrères should practice as medical men at all. The specialist may appreciate that the condition of the throat is secondary to a sinus infection or merely to nasal obstruction—or believe that the patient is at an age when the normal hypertrophy of lymphoid tissue occurs. *Too often the medical man has already made the extravagant statement that the parent will incur direct responsibility for dire consequences unless the child's tonsils and adenoids are removed at once.*

I hope I have said enough to show that I believe that tonsillectomy performed in such children for such supposed dangers is rarely justified.

The blame for this unhappy state of affairs lies upon those members of the medical profession who have forsaken the great principles of medi-

cine. No surgeon should allow himself to become a mere mechanic. No medical man worthy of the name should force the surgeon to become one.

My advice to you is to remember that the rhinologist's field is as much medical as surgical. In your surgical capacity your work must be done with dexterity and finesse. In your medical capacity it is incumbent upon you to remember the principles ground into you as a medical student. One of you may be able to perform such a difficult operation as laryngectomy skillfully and another may not be able to do that operation at all—and yet the latter may be the sounder and more reliable rhinologist. As a surgeon you may enjoy the speed and satisfaction of operation but as a medical man you must remember not to neglect the long, arduous, but more essential work of taking an adequate history, making a careful examination and then carefully considering the evidence before giving advice. *The diagnosis and therapy indicated is in the history—if it is a good history.*

**Advise the removal of tonsils or the drainage of a sinus when you believe that the tonsil or sinus condition is detrimental to your patient—but do not say that you are removing the *focus* of infection and still less do not lead your patient to believe that his distant troubles will vanish.**

Many patients who are chronically ill of some disease or think they are, drift from one doctor to another, without getting a definite name to their group of ever changing discomforts. Some of these deluded people seek the dramatic and their symptoms disappear if their tonsils, appendix or gallbladder are removed. The disease is psychic and could easily be cured by a freak belief—one may perform any kind of miracle by making a wrong diagnosis. Nevertheless, there is a small number where some honest doubt exists, as to the possibility of a hidden focus, and in such cases tonsils may be removed in the hope of doing some good. I can conceive of such cases and agree that the operation may be justified, but only when every care is taken to explain to the patient honestly and fearlessly the point at issue, and let him unquestionably accept the situation and share the responsibility.

The focus of infection idea has tended to segregate the ills of the patient in an isolated spot. This has been a short cut contrary to sound medical principles. A patient's illness is part of himself. The medical man should revert to the sound principle of treating his patient as a person.

## Conclusion

In conclusion the otolaryngological viewpoint must be: that sinuses when infected are rarely the cause of systemic disease: that the positive relationship of infections in the tonsils to systemic disease is not invariable: and that the removal of harmless tonsils as a prophylactic measure is unjustified in the majority of cases.

We have seen that enthusiasm for a new method of clinical approach has led to unjustified generalizations. These misconceptions have been appreciated alike by experienced clinicians and laboratory workers. These misconceptions have led to excesses in treatment by operation on the mouth and throat; which excesses are now recognized and deplored by leaders of the medical profession.

But the great public—and the mass of the medical profession as well—are unaware of the change in sound medical viewpoint. They require to be told in no uncertain terms that "focal infection" is not the Utopian short cut to the eradication of disease.

There is no golden short cut to the cure of a patient. For the credit of medicine and the welfare of the patient, meddlesome and unnecessary surgery—whether advised by the internist or condoned by the specialist—must cease.

The cure of a patient lies—as it always has and always will—in careful history taking, thorough examination, adequate weighing of all the facts and in gentle painstaking surgery.

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# Treatment of Facial Wounds Due to Explosions*

By Claire L. Straith, M.D.
Detroit, Michigan

CLAIRE LEROY STRAITH, M.D.

*B.S., University of Michigan; M.D., Rush Medical College; D.D.S., Chicago College of Dental Surgery. Chief of Division of Plastic Surgery, Harper Hospital, Detroit; Associate or Consultant Plastic Surgeon to Children's, Receiving, Deaconess, Jennings, Blaine, Mt. Carmel and other hospitals. Member, American Society of Plastic and Reconstruction Surgeons, American Association of Oral and Plastic Surgery; American Board of Plastic Surgeons; Michigan State Medical Society; F.A.C.S. Author of numerous articles on Plastic and Reconstruction Surgery.*

Fig. 1. As a result of a dynamite explosion, this patient's face was blown full of particles of gravel, dynamite and other foreign material. The upper lip was torn open through the midline and the nose mangled almost beyond recognition. The anterior antral walls were completely crushed and both antrums filled with clay and dynamite. The upper jaw was fractured horizontally and also through the midline, leaving two separate fragments hanging by the posterior mucous membrane of the mouth. About two hours were spent in extricating the numerous pieces of foreign material from the facial skin as outlined in the text. The antra and nasal cavities were cleaned out as best possible and the fragments of the jaw were held in place by special wires and splints, removing only those portions of the bone which were hopelessly detached.

Fig. 2. In nasal reconstructions, the author prefers to use a posterior auricular pedicle flap in order that the nose may be reconstructed of hairless skin of good matching quality. This tube is detached after a preliminary elevation behind the ear and is transferred to the nose in about three weeks.

Fig. 3. For further reconstructive work, the base of the pedicle was re-attached to the cheek.

Fig. 4. Photograph of the patient several months later, after a nasal reconstruction, insertion of preserved rib cartilage beneath the skin of the nose to restore the support and subsequent scar excisions from the lip. Note that the pigmented and foreign body particles have practically all been eliminated by the meticulous scrubbing, et cetera, at the first operation.

■ MEDICAL preparedness demands that all doctors become more familiar with the treatment of wounds due to explosions. The utilization of small industrial plants throughout the nation; the probability of more serious and frequent acts of sabotage in our far-flung defense industries, all lead to the possibility that practitioners in small and large communities may soon be faced with the problem of caring for severe explosive injuries.

The discussion of this subject will be limited to a few of the many phases of treatment. It is assumed that the general condition relative to shock, hemorrhage, and the administration of antitetanic and gas serum have been cared for and that the patient is ready for actual treatment.

The care of foreign materials blown into the face should be one of the first considerations. This treatment should be similar to that given to victims of automobile accidents where cinders and other debris are ground into the wound.

At the first opportunity, the area should be anesthetized with novocain. Oil marks should be washed thoroughly with soap and water and benzine; cinders, powder marks and other foreign material should be scrubbed out with a stiff bristled hand brush and any remaining particles picked out, piece by piece. A small dental curette, a curved needle mounted in a needle holder, or an eye spud will serve to remove such particles after this thorough scrubbing. Bettman advises applying 5 per cent tannic acid followed immediately with 10 per cent silver nitrate after the scrubbing. Removal of the crust later will bring with it any remaining particles. Lead fragments, et cetera, should also be removed as far as possible but in some cases, the removal of many small fragments does more damage than the danger of leaving them embedded and so discretion must be used. Metallic fragments in the antrum can be removed through the canine fossa and the cavity drained into the nose through the naso-antral wall.

In civil life, this part of the treatment alone may consume considerable time but if this meticulous care is neglected, these particles left in the

*Read before the Chicago meeting of the Society of Plastic and Reconstructive Surgeons, October 25, 1940.

skin soon become overgrown with scar tissue and a permanent pigmented scar results. It is almost impossible to correct the condition at a later date and, therefore, such pigmented scars may ruin a patient's social and business life.

most cases, especially in view of the newer methods available in chemotherapy which should minimize or prevent infections.

Plastic surgeons in England are now treating large mangled areas which are devoid of

Fig. 5. An explosive injury caused a bilateral fracture of the mandible in the bicuspid region, severe comminution of the alveolar process in the upper and lower jaws and a transverse fracture of the alveolar process at the base of the roots of the lower teeth in the anterior fragment of the lower jaw. Hopelessly separated pieces of alveolar process were removed in this case and the fragments of the jaw wired as shown in the illustration.

Fig. 6. Immediate suturing of this wound with "figure of eight" sutures tied within the mouth brought the surface skin in good apposition. The surface wound was closed with subcuticular stitches and light interrupted horsehair sutures.

Fig. 7. Note that the tooth fragments, alveolar fragments, etc., which were hopelessly separated, have been removed. The other fragments were held in place by silver wires passed through or around them. While this position does not seem to be exceptionally good, yet an excellent result was obtained as shown in Figure 8.

Fig. 8. Radiograph taken after healing was completed. Note the solid bone formation which again restores the jaw to normal shape. The silver wires may be left in indefinitely as a rule.

Fig. 9. An after picture taken several months after the injury shows comparatively little scarring and these scars can be improved by future excision and careful resuturing.

Early suturing of facial wounds has many obvious advantages in decreased scar formation, early recovery, etc., but there are also many factors which militate against its success. Unavoidable contamination by nasal and oral secretions, bone fragmentation and the desire to conserve every viable bit of skin are a few of the hindering factors.

I feel that in spite of the obvious drawbacks, immediate closure of the wounds is indicated in

skin covering by careful débridement, dusting the wound with sulfanilamide powder and applying large split skin grafts cut with the dermatone and sutured in place, as a primary dressing. Pressure is applied on the grafts with cotton waste or sponges incorporated in the dressing and the whole part immobilized in a plaster cast. Dressings are not removed for ten to fifteen days. This has resulted in much more rapid healing and fewer granulating

wounds which took months to heal under former methods of treatment. (Converse)

**Débridement of facial tissues should be done very conservatively, for, due to the active blood supply of the face, it is often surprising how many apparently hopelessly bruised tissues will survive. Tension sutures on the surface should be avoided because they leave scars wide of the wound, especially in the event of infection. "Figure of eight" stitches with knots tied on the mucous membrane serve the purpose nicely and leave no surface scars. The use of fine wire sutures in this way is also recommended, especially where infection is almost inevitable.**

Special landmarks such as eyebrows, eyelids, vermilion lip borders, etc., should be brought together first to avoid distortion later. Subcuticular stitches should be used wherever possible and the surface sutures can then be of fine horsehair for temporary use only. Thus, the surface scarring will be reduced to a minimum. The "figure of eight" and subcuticular stitches can be left in for two weeks if necessary, while the wound is healing.

**In actual loss of tissue around the mouth or nose, it is undoubtedly better to bring the mucous membrane out to the skin edge and suture it. This leaves a clean edge which heals readily and aids in the plastic reconstruction later. There is a maxim in plastic surgery which holds true here—namely, "Never distort tissue to close a defect."**

Aftercare is also very important. Heavy dressings should be dispensed with because they soon become wet and promote infection. A sitting posture in bed will probably help drainage and decrease chances of pneumonia. Adequate drainage, if osteomyelitis develops, is very necessary.

Fig. 10. Chemical burns in this case caused total loss of the right ear and destruction of the skin over practically the entire right side of the face. Early skin grafting is recommended in such instances before contractures take place.

Fig. 11. Ear reconstruction is one of the most difficult problems in plastic surgery and was especially difficult in this case since the entire ear area was a mass of scar tissue. This shows the elevation of a pedicle and a skin graft behind the ear on the scalp and the posterior surface of the pedicle as a preliminary stage to bringing up the tube pedicle shown on the chest which will be used to make the rim of the ear.

Fig. 12. Final photograph shows a full thickness skin graft along the right side of the nose letting the right edge of the ala down. Thiersch grafts were removed with a dermatome and placed over the right side of the face and a semblance of an ear has been reconstructed out of the scar tissue and a chest pedicle. At future operations, we propose to remove more of the scars from the face and reshape the ear to some extent.

Chemotherapy is of great importance and, in the future, should reduce the complications of infection and pneumonia considerably. Fuller and James, reporting on the use of sulfanilamide derivatives in the present war, advise a blood concentration of 2 mgrs. per cent as a preventive given within two hours of the injury. They recommend 1.5 grams sulfanilamide dissolved in sweetened 1 per cent solution of citric acid, followed in two hours and then every four hours, by one 0.5 gram tablet. The first dose in solution aids in the rapid absorption, disguises the taste and reduces the toxicity of the drug.

Chemical explosions usually result in severe burns and must be treated as the individual case demands, neutralizing the caustic agent and treating the burned area. They should be skin-grafted early to prevent scar tissue contracture which always increases the deformity. The reconstruction of any missing parts such as eyelids, ears, noses, et cetera, should begin as early as

possible because this is often a very prolonged ordeal at best.

Facial bone fractures offer complications in many explosive injuries. Conservation of bone fragments is of paramount importance in order to reduce the subsequent deformity. Completely separated fragments of bone, especially in the upper jaw, usually have to be removed but wherever there is some periosteum attached or a possibility of the fragment living, these pieces should be replaced. Many times, small holes can be drilled in the fragments and 22 gauge silver wire used to hold them together. This is often of great value in holding nasal or malar bones up to the frontal bones after complete separation.

Fractures of the alveolar process often result in an osteomyelitis of this area and, therefore, tooth fragments and unattached pieces of alveolar process should be carefully removed. Fragments of the jaw itself should be carefully preserved to maintain its normal contour. Again, silver wires can be used very effectively in holding such fragments together.

Dental splints or intermaxillary wiring must be resorted to in the restoration of the contour of the arch. Many authors suggest the use of the four-tailed bandage for mandibular fractures but this can often result in an increased deformity. Great care should be exercised in putting on such a bandage so that the chin is not depressed and the displacement of the fragments thereby exaggerated.

In spite of all precautions, subsequent plastic operations are often necessary. Scar excisions should be delayed until at least two months have elapsed. Facial depressions can often be built up with preserved cartilage transplants after a few months but bone grafts to the jaw should be delayed a year in most cases.

### Summary

It is the opinion of the author that, in civil life, we should expect and be prepared to treat more wounds of this nature which may become increasingly common as acts of sabotage, etc., increase in frequency. By giving the matter some thought at this time, we may contribute in a small way to the preparedness program.

MSMS

# Staphylococcus Meningitis

## Case Treated by Sulfadiazine with Recovery

By William S. McCune, M.D.
Petoskey, Michigan

WILLIAM S. MCCUNE, M.D.
*A.B., Swarthmore College, 1931; M.D., Harvard University Medical School, 1935; Secretary of the Staff of the Lockwood General Hospital, Associate Member of the Staff of the Little Traverse Hospital, Petoskey. Member, Michigan State Medical Society.*

■ STAPHYLOCOCCUS meningitis is an uncommon, though by no means rare disease, occurring usually as a complication of other infections, though occasionally without any known preceding focus. Until the advent of sulfonamide therapy, the mortality had been discouragingly high, only scattered cases treated successfully by other methods having been reported. Since the use of sulfanilamide and its related compounds the outlook of these cases has brightened somewhat and I hope that the use of sulfadiazine will further help to lower the mortality.

In 1939 Michels and Gonne[8] collected eight cases from the literature and reported one of their own. Additions since that time have raised the number of reported cases to about twenty, all of which have recovered. In these the most common primary focus was the middle ear, although furuncles, craniotomy wound infections, prostatic abscesses and respiratory infections have at times been complicated by this type of meningitis.

The symptomatology is not unlike that of meningitis due to other organisms, except that it almost always occurs during the course of a known infection, and is usually recognized promptly. The onset of stiff neck, headache and drowsiness, accompanied by a secondary rise in temperature to 103° or 104° during the course of a staphylococcus infection, should at once suggest that the organism has invaded the meninges. A spinal puncture should be performed at once to establish the diagnosis. The fluid, which is ground glass to cloudy in appearance, has a high cell count of polymorphonuclear leukocytes and usually shows gram positive cocci on a stained smear. Within eighteen to twenty-four hours these bacteria can be proven by culture to be staphylococci.

The variety of therapeutic methods used in

this type of meningitis prior to discovery of sulfanilamide was proof of its stubborn resistance to treatment. In 1928 the value of intraventricular injection of gentian violet was shown by Lamb[7] and this dye has since been used intravenously by Blitz and Hermann[1] with success. In 1932 Schless[12] reported an instance of the disease which responded to the use of bacteriophage and later this treatment was employed by Stout[14] and by Dunlap.[3] Fritz and Hollister[5] reported a case which recovered with the use of staphylococcus antitoxin, although sulfanilamide was also employed in their patient.

Sulfonamide therapy has been used with encouraging results by a number of authors. Gonne, Peuterbaugh[9] and Findlay and Hammel[4] each treated a patient with sulfanilamide, Sadusk,[11] Cohen and Galpern[2] and others with sulfathiazole, and Gill[6] with sulfapyridine, all with recovery.

Since the introduction of sulfadiazine in 1940 by Roblin[10] and his colleagues, this drug has received increasing attention because of its low toxicity and its chemotherapeutic activity against a variety of pathogenic organisms including the staphylococcus. These facts, and the observation that after some initial delay sulfadiazine concentrations in the cerebrospinal fluid equal to two-thirds of the blood level of the drug can be maintained by oral administration alone,[13] prompted me to employ it in this case of staphylococcus meningitis. Following the recovery of the patient I feel that the definite advantages of sulfadiazine make this a promising method of treatment and warrant making this report.

## Case History

Mrs. J. T., a sixty-four-year-old housewife was first seen on the afternoon of September 27, 1941, with the complaint of earache, frontal headache and drowsiness. She had been well until the night before entry when she had been awakened from sleep by a very severe pain in her left ear which forced her to get out of bed and pace up and down in her bedroom. Toward morning the pain was suddenly relieved by the discharge of a little blood from the ear. She felt better and was able to take a short automobile trip during the day but by night felt very tired, cold and complained of headache, drowsiness, nausea, and a return of pain in her left ear. She was admitted to the hospital twenty-four hours after the onset of her symptoms.

Her past history revealed that she had undergone a hysterectomy in 1926, a cholecystostomy in 1931, a cholecystectomy in July, 1941, two and one-half months before admission, and for the past ten years had been a victim of hypertension and an enlarged heart.

### *Physical Findings*

Examination on admission to the hospital revealed an elderly woman, in a semi-stupor. Her temperature was 102.2, pulse 92, blood pressure 208/96, respirations 25. Both pupils were contracted. Ocular movements were normal as well as could be determined. There was definite neck rigidity and pain in the neck on attempted flexion. The left ear drum was hemorrhagic in its posterior part but was not bulging. The landmarks had disappeared and there was a small amount of bloody discharge in the external canal. The thyroid was slightly symmetrically enlarged, the heart enlarged 2 cm. to the left, but the heart sounds clear and regular. Her chest was clear. There were low midline and high right rectus abdominal scars. Pelvic examination was normal except for a moderate white vaginal discharge. The right biceps reflex was more active than the left. Abdominal patellar and ankle reflexes were absent. plantar reflexes normal.

### *Laboratory Studies*

Red blood count: 3,250,000; hemoglobin: 75 per cent; white counts: September 28—15,800; October 3—17,000; October 8—8,200. Urine: neutral; specific gravity: 1.020; albumin: 2 plus; sugar: negative; sediment: occasional hyalin casts; 10-20 white blood cells / HPF. Spinal fluids: See table. X-rays: films of both mastoid areas showed no clouding or breakdown of cells and were considered to be negative.

TABLE I. SPINAL FLUID FINDINGS

| Date | Appearance | Pressure | Cell Count | Smear | Culture |
|---|---|---|---|---|---|
| 9/28/41 | cloudy with pedicle | increased | 1,233 polys | Gram-positive cocci | Staph. aureus |
| 10/2/41 | clear | normal | 128 polys | no bacteria | sterile |
| 10/8/41 | clear | normal | 13 polys | no bacteria | sterile |

### *Clinical Course*

Shortly after entry a lumbar puncture was performed, and because of the finding of cloudy fluid and gram positive cocci 90 grains of sulfanilamide were given during the first twenty-four hours. Dr. William Conway was called in consultation and advised paracentesis of the left drum which was performed. He also suggested the use of sulfadiazine because of its diffusibility through the meninges. This was felt wise also because of finding Staphylococcus aureus on culture in our laboratory and in the Grand Rapids State Laboratory. Consequently the sulfanilamide was replaced by sulfadiazine with an initial dose of 1.5 grams followed by 1 gram every four hours throughout the illness.

Twenty-four hours after beginning sulfadiazine therapy the rectal temperature, which had risen to 104, dropped to normal, but rose again to 101.6 where it remained for five days. It then fell to normal. Except for this there were no signs of improvement until October 4. The patient continued in a semi-comatose state, moaning, irrational, taking fluids poorly by mouth but always just able to take the sulfadiazine. She was incontinent, vomited occasionally, and developed paralysis of the lateral rectus muscle of the right eye which later disappeared. She was treated supportively by saline or 5 per cent glucose intravenously when the fluid intake was low, bladder washes for cystitis, enemas as necessary and general nursing care.

On the morning of October 4, the eighth day of the disease, and sixth day of sulfadiazine therapy, she awoke greatly improved, asked questions about her surroundings, her family and illness, but appeared to be totally blind in both eyes until October 6, when her sight began to return. By October 9 her vision was 20/40 in each eye with glasses. Biceps, patellar and ankle reflexes returned, though the biceps and patellar jerks were more active on the right than on the left side. On the day of her discharge to a convalescent home, October 9, she was rational, quiet, and complained only of weakness. Her temperature was normal. On lumbar puncture the fluid was clear, contained 13 cells per cu. mm. and showed no organisms on culture. She had no memory of her illness.

On November 1 when last seen she complained only of some dizziness. There was no drainage from the ear, her temperature and pulse were normal and reflexes essentially normal. Her blood pressure was 210/98.

### Summary

A case of staphylococcus meningitis, resulting from acute otitis media, is presented, which responded well to the oral administration of sulfadiazine. It is hoped that this may prove to be an effective agent in the treatment of the disease because of its diffusibility through the meninges and its bacteriostatic action against staphylococci.

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MSMS

# Medicine and the Antitrust Act*

## A Discussion of the Government's Suit Against the American Medical Association

By Walton H. Hamilton, Southmayd Professor of Law, Yale University School of Law

■ Mr. Chairman, Gentlemen of the Medical Profession, and Fellow Students, may I begin with two or three words of explanation? If I appear before you as a layman, in respect to the subject with which we are dealing you appear before me as laymen. We are dealing with a technique very different from medicine. I shall, so far as I can, avoid the words of the law, because they are many, complicated, and interminable. But the difficulty is more than a language difficulty. The process by which the law operates is so different from that which you employ in your everyday work that it is not easy to follow.

Second, I shall, during the course of this discussion, wander to and fro, down the ages. I may mention the date 1603, 1623, or 1819, or other dates which seem to savour of the antique. I would hardly expect if I went into one of your offices to find you invoking Galen, Harvey or one of the ancient worthies. If, bothered by symptoms of mine, you should make reference to "21 Jacobus I, Chapter 3," I should probably throw up my hands in horror. But the ways of law are decorous and its authorities venerable. If mine adversary quotes a case of 1621, and I can counter with one from the vinting of 1601, I take that round.

Third, when you resort to law, you invoke a

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very stubborn diagnosis. You commit yourself to a series of moves which seems interminable; your case moves from court to court; between the trial and the appeal courts it may even shuttle up and down. As it goes forward—or backward—it is, therefore, essential to keep clearly in mind exactly what the motion is and what stage in the litigation has been reached.

Finally, my concern is with the case in perspective and in general significance. I have no disposition to pass upon the guilt or innocence of the parties concerned. I shall review particular acts only so far as is necessary to throw into relief the legal questions which are of professional interest.

This is the autumn of the year 1941; yet the events which pass in legal review all occurred during the years 1938 and 1939. If you had a patient whose symptoms were diagnosed in 1938, and in 1941 you were still not free to prescribe, I wonder what the practice of medicine would be like. Yet the case still remains on the court's calendar and months, even years, may pass before finis can be written to the story,

Late in 1936 a group of government employes, mostly connected with the Home Owners Loan Corporation, decided to form a "medical coöperative" known as the Group Health Association. When that was done, the laymen in charge went to the officers of the District of Columbia Medical Society, disclosed their plans, and called for coöperation. In those early months, four courses of action were debated by the officials of the Medical Society. One was to be strictly neutral and "let the thing go to the devil." The second was "here is an experiment, maybe it won't get anywhere, maybe it will, let's lend a helping hand. It certainly can't make good as outlined, but maybe it can be converted into something that is worth-while." The third was to checkmate with a group plan under the auspices of the local organization. "Let's set up a scheme of our own which goes in the same direction, preserves the ancient liberties of the profession, and avoids the bad features of Group Health." And the fourth was, "let's become militant and give the thing the works." There were people in the Medical Society who took all of these various positions. What the general sentiment of the Society was it is impossible to say. The officials were in charge; and, though there was delay and difference of opinion, little by little they drifted toward the fourth position, that of militancy.

The first legal move was a flank attack. The officers of the Medical Society persuaded the District Attorney to ask the court for a declaratory judgment to the effect that "Group Health" was: (a) without a license doing an insurance business; and (2) as a "corporation" was engaged in the illegal practice of medicine. Generally speaking, the courts will not in the abstract make a declaration on what the law is. Usually they wait for "a genuine case in controversy." Then the issue is carried up through the various tribunals to—as the Chief Justice has put it—"the court of ultimate conjecture and final error." A declaratory judgment is gradually coming into the law. It is to litigation what prevention is to the practice of medicine. In a word, the law is declared in advance so that people may suit their actions to it and avoid the bother and expense of needless conflict.

These motions were in due course argued before District Judge Bailey. He admitted "Group Health" to be a corporation, but denied that it was engaged in practicing medicine. It was not the association, but the physicians employed by it, who were practicing medicine. Nor was it concerned with the insurance business. Instead its members had banded together into a "consumers' coöperative" to make a collective purchase of medical services. In medicine a disease by any other name would be as deadly; in law innocence or guilt often wait upon the name by which a thing is called. Insurance—a corporation practicing medicine—unlawful; a consumers' coöperative—legal questions vanish.

Then came certain moves against Group Health by the District of Columbia Medical Society. In respect to these the Government brought its indictment, charging violation of Section 3 of the Sherman Act, popularly known as the Antitrust Act. The counts against the Society, the American Medical Association, and their officials were three in number. The first was interference with physicians—both those who were in the employ of Group Health and those who might in future be so employed—in "the lawful pursuit of their calling." The second was interference with Group Health in an experiment intended to bring service within the financial means of the common people. The third was the denial to the public at large of whatever benefits might emerge

from the provision of a more economical medical service.

All of this was a verbal cloak for a recitation of particular acts alleged by the Government to lie beyond the tolerance of the law. A physician was required to resign his position with Group Health as the price of retaining membership in the Medical Society. Another who persisted in staying with Group Health was expelled from the Society. A threat of "discipline" was made against any member of the Society who permitted himself to be called into consultation by any member of the staff of Group Health. Steps were taken to have the hospitals in the District of Columbia deny "courtesy" privileges to the members of the staff of Group Health. In a word, the Government charged a boycott against Group Health, the physicians in its employ, physicians who took counsel with them, and hospitals which extended their facilities to them.

Such, in the broadest terms, are the counts. To any indictment, the defendants can enter one or another of two pleas. They may admit or deny their guilt; if they deny, the case goes to trial, and the burden of proof is upon the party who alleges illegal conduct. Or they may insist that the statute under which they are hailed into court does not prohibit the specific conduct with which they are charged. In technical terms, they may answer or they may demur; or, in popular language, their choice is to say it-ain't-so or to ask what-of-it.

When, at a preliminary hearing, the defendants appeared before Judge Proctor, it was to ask what-of-it. Their demurrer took three lines. First, Group Health was illegal; for a corporation, which had no sanction to do so, was illegally practicing medicine and selling insurance; and surely there was no wrong in interfering with an illegal concern. Second, the indictment was faulty. It was so colorful and so detailed as to prejudice the jury against the individual whom *it sought to convict.*†

Third—the one which was pressed the hardest—physicians are not subject to the prohibitions of the Sherman Act. For the law forbids restraint of trade; and, since medicine is not a trade, practitioners of medicine cannot possibly engage in restraint of trade.* Judge Proctor sustained the demurrer and the Government took an appeal to the Circuit Court of Appeals.†

As the appeal was taken, it was the law and not the defendants, who went on trial. At this stage there was no question of guilt or innocence; the issue was the abstract one of whether physicians could be brought into court for violation of the antitrust acts. No more, no less, was under consideration than what the law is, and whether it applied to the kind of situation recited in the indictment.

The government's contention was that whether medicine is a trade or a profession had nothing to do with the case.** It was perfectly willing to concede that medicine is a profession, a noble profession, a learned profession. But it insisted that no question concerning the practice of medicine by a physician was at issue. Instead the concern was wholly with the economic arrangements, under which medicine is made available to the people. The doctor can meet his patient under any one of an almost infinite number of arrangements. Therefore, the heart of the case was the economics of medicine, not medicine as a profession.

The appeal presented a question of strategy; the issue might turn upon the line of attack. It was possible to exalt the common health, insist that current service was inadequate, play up Group Health as a great forward movement.‡ Or it was possible to ground the argument in the ancient precedents of the common law. In the end the more legalistic attitude prevailed; the dust was blown off of all the old books; rules, principles, citations were sought which, carrying across decades and even centuries, could do doughty duty in a modern bout at law.

So it was contended that there was here no issue over medicine and "trade." Rather the

†At the close of the trial, the attorneys for the defendant insisted that the jury should not take a copy of the indictment with them when they retired to make up their verdict.

*This did not stop the same attorneys from analogyzing the medical society to an association of working men, and claiming for the A.M.A. all the immunities which the courts have accorded to the trade union.

†Had the demurrer been overruled the case would at once have gone to trial. At this point, the plaintiff has an appeal, but not the defendant. The reason for the difference is common sense. If the case goes against the defendants, they can argue their demurrer along with their conviction; so no rights are lost. But, unless the government can appeal at this point, its case can never be brought to trial.

**Just to get the record straight, a personal confession is in order here. At this point I entered the case in a minor role and wrote about half of the government's brief on the appeal. Again, to keep the record straight, I took no subsequent part in the proceedings.

‡It is of note in passing that the appeal was to be argued before a bench of three chosen from a court of six judges. Since these differed in attitude, experience, legal specialty, the world that moves beneath the hat, it might make a difference just who was to sit. Since this was not to be known in advance, lawyers on both sides were in something of a quandary as to just what to plead. The government, for instance, might have plead the "liberal cause" of seeking to promote the common health. Instead, it took a conservative stand and bottomed its case on the common law.

question was whether certain individuals, who happened in the instance to be physicians, had been guilty of the offense known at law as "restraint of trade." If you will write the term not as restraint of trade, but as restraint-of-trade, you will have a key to the line of argument. You cannot look up the word "restraint" and the word "trade" in the dictionary, and by putting them together find what the term means. You might just as well, by looking up the separate words try to determine what "last clear chance" or "due process of law" means. In other words, "restraint of trade" is a term of art. As such it has little by little accumulated its meaning over a period of years. Therefore, the meaning of the term is to be discovered in the history of the law.

The question is the meaning of the term as set down in the Sherman Act under which the indictment was brought. This statute which was passed by the Fifty-first Congress and became a law on the 2d of July, 1891, has had an extremely interesting history. The original bill, introduced by Senator Sherman, was a thrust at the trusts, just then becoming big and powerful. It was aimed at persons who sought to lessen competition or to enhance the price of goods to the consumer. As it was debated it was amended, and as amendment after amendment was added, it lost alike its objective and its integrity. Eventually, as a thing of shreds and patches, it was referred to the Judiciary Committee. Despairing of straightening out the tortuous lines, the Committee scrapped the bill and with Senator Hoar as draftsman, rewrote the statute. It defined no new offense. It simply put a ban upon all conduct known to the common law as "restraint of trade."

It is always a task to discover the range and meaning of a statute whose lines are as lean as the Sherman Act. In this instance the history of the measure points the way. The bill which was debated was never passed; the bill which was passed was little debated. The quest for content runs away from the Congressional Record to the annals of the courts. There it is discovered that the reports abound in cases of restraint of trade. And, strange as it may seem to the laymen, there are more of these which concern medicine than any other calling. In fact an appendix to the Government's brief lists more than one hundred cases in which courts had applied to the medical profession the doctrine of restraint of trade.

It comes up in this particular way. A doctor sells his practice to another physician. He agrees for a certain period of time and within a certain territory not again to engage in practice. After a time the itch of the calling comes upon him, and he can remain idle no longer. Sooner or later, the old shingle is hung out again, whereupon the doctor to whom he has sold his practice brings suit against him for breach of contract. When it goes into the court, the doctor who rues his bargain pleads, "Yes, I have broken my contract, but the contract is illegal." For what reason is it illegal? "It is illegal because it is in restraint of trade and therefore void as against public policy." Sometimes the court finds for the plaintiff and awards damages; sometimes it finds for the defendant and dismisses the suit. But, in every instance, the norm of reference is the prohibition against restraint. In fact, so far as the cases go, the doctrine of restraint of trade is better established in respect to medicine than any other occupation. The criminal penalty in the Sherman Act is new but the offense is old. The sole novelty is in making a misdemeanor out of what had long been recognized as a common law wrong.

The Government's argument was to the effect that the Sherman Act is general; that restraint of trade is an offense of which any person, corporate or natural, may be guilty; that its domain is universal. True, there can be an exception, but the exception must be decreed by the legislature which has passed the act. And every exception must be explicit, for adequate cause, by proper grant. Exceptions to the general law cannot be based upon inference or implication.

To the Sherman Act a number of exceptions have been written. They fall roughly into two general classes. The first are in respect to certain services where the consumer cannot best be served by competition. The public utility companies are the best example. But in such cases the state itself sets up a regulatory commission as substitute for competition. The second presents an attempt of the state to favor the weaker party to the bargaining process. The best example is in connection with labor. Statutes of the United States encourage working men to bargain with their employers as a unit. The theory is that such unity of action is necessary to en-

courage "that equality of bargaining power in which freedom of contract begins." A like exception has been written in favor of farmers' cooperatives in the Capper-Volstead and the Agricultural Marketing Acts. But lest indulgence be pushed too far, those statutes provide that if the Secretary of Agriculture has reason to believe that the exception in any way tends towards monopoly, he shall take appropriate steps to hold it within lawful bounds. In all such instances the attempt is to lift the weaker party to an equality in bargaining power; but the moment a favored group rises above that plane, it transgresses the law.

So the question occurs, is there any exception on which the officials of the medical association can rely? It must, mind you, be explicit and by special legislative grant. Take first the American Medical Association, a corporation of the State of Illinois. It was chartered under the corporation act of a particular state, and it was not given a special charter. The instrument under which it operates is simply one of hundreds issued under a general enabling act. It contains no saving clause in favor of the medical profession. Nor, if there were, would it be of any value; for a state of the union can grant no immunity to a Federal act.

The Medical Society of the District of Columbia is, however, upon somewhat firmer footing. Its character came by way of a special act of Congress, the very body which passed the Sherman law. If, therefore, a saving clause can be discovered within the four corners of the charter, it is possible to plead an immunity. The original grant dates from 1819; as the preamble declares the grant was made for the purpose of "promoting and disseminating medical and surgical knowledge and for no other purpose whatsoever." A section of the charter expressly provides that "nothing herein contained shall authorize the said corporation in anywise to regulate the practice of medical or chirurgical attendance upon such persons as may need those services nor to establish or fix a tariff of charges." The grant gives to the Medical Society the right to license physicians. That power was later taken away by an Act of Congress.

In 1924 Congress amended the charter of the Medical Society. Again the purpose was limited to promoting and disseminating medical knowledge; again was added the words "and for no other purpose." No prohibition covering the regulation of fees was deemed necessary, presumably because Section 3 of the Sherman Act covered the matter.† The discussion on the floor indicates that Congress desired to limit the activities of the Society to its avowed objects. Nowhere is it written that the Society may concern itself with the economic aspects of medicine.

A collateral chapter of history moves to the same result. In the sixteenth century, when the common law was in the making, the English government operated to a large extent through corporations of its own creation, All sorts of public functions were delegated to the half-private, half-public body known as "the honorable company." One of those charters—a most interesting document—was issued to the College of Physicians of the City of London. It gives to that body the right to license all physicians. It gives to it the right of "search and seizure" in respect to all medicines and medicinal products which come to market. The College had its own court, policed a public domain, imposed its own sentences, even sent transgressors to jail. There was, in a word, an autonomous control of the medical profession by the College of Physicians. As the use of private agencies to do public work fell away, the "liberties" of the College were later restricted. A copy of this old document seems to have been before Congress in 1819; for a number of paragraphs in the charter of the Medical Society of the District of Columbia are identical in language with its provisions. It is, therefore, significant, that all powers of police, and all authority in respect to the economics of medicine are omitted from the District Society's Charter.

In days of old the law undoubtedly recognized immunities in respect to the learned professions. At the close of the Middle Ages the affairs of the church were rather generally beyond the reach of the secular law. But in recent centuries the legal trend has been towards a general law which treats all alike. As against class or calling no principle is today better established than "equality before the law." So the Government concluded its argument with the statement that the law did not spend centuries, first to abate and then to abolish

†In the original debate, leading to the Sherman Act, Senator Morgan had asked if medicine were not included within the proposed measure. Senator Sherman did not know. The Government in the instant case plead "the silence of Congress" against any exception.

benefit of clergy, to confer its immunity upon the more secular calling of physician.

The appeal of the Government was successful. The Circuit Court reversed Judge Proctor and overruled the demurrer. A petition by the defendants to the United States Supreme Court was denied. So, after much-to-do over the law, the suit eventually went to trial before Judge Proctor. In this ordeal the Government put forward two distinct lines of testimony. The first was a series of documents gathered from the files of the accused. In accord with its usual procedure, the Government secured from the court and served upon the District Society a subpoena duces tecum —"you come into court and bring with you." You might almost add to that "Cum filing case." In other words, "Bring all of your records." It was as if the Government had said, "These charges must be tried by the facts; we haven't the facts but you have; bring them into court."

If I may be permitted to say so, the officials of the Society had behaved like amateurs, not like hardened criminals, at the game of restraint. They put things in writing which no baron of big business would ever allow to escape the secrecy of private conversation. An example or two will make the matter clear. A resolution begins, "Whereas the Medical Society of the District of Columbia has an apparent means of hindering the successful operation of Group Health Association." A statement by an official of the Society urges indirect attack, insisting that whatever plan is used, it must be "camouflaged to the nth degree." It is easy to multiply instances of such indiscreet statements.

Second, the Government introduced evidence of overt acts on the part of the defendants. As is the habit of lawyers, the attorneys for the government tried to make their exhibits as dramatic as possible. They presented instances of individuals taken to hospitals in the dead of night in demand of immediate surgical attention. As usual, it was the zero hour, the cold winds blew; snow lay upon the ground. In such circumstances the patient was turned away, the Group Health surgeon was denied the right to operate, and in one instance a junior member of the regular staff was alleged to have run by all the red lights and to have performed an unnecessary operation. There was material for an exciting show and the lawyers for the government did not stint its use.

Attorneys for the two sides "summed up," each giving an impartial history of the case from his own point of view. Each side prepared proposed instruction to the jury and passed them along to the judge. The judge accepted the majority of the instructions presented by the defense, but turned several down. In these instances the defense took exception as the basis for an appeal. As with the defense, so the instructions prepared by the plaintiff were accepted or rejected at the pleasure of the court. In addition the judge delivered a number of instructions of his own and sent the case to the jury. The jury deliberated a few hours and you know the result. The list was called: "American Medical Association"—"Guilty." "Medical Society of the District of Columbia"—"Guilty." Defendants A. B, C. D, . . . N, "Not Guilty." The American Medical Association and the District Society had violated the Sherman Act, but no official or member connected with either had engaged in restraint of trade. The two corporations had acted, but without the intervention of any human agency whatsoever. The verdict has led to the judgment being known around the Department of Justice as the Case of the Immaculate Conception.

Yet such a result is not surprising. The judge instructed the jury to weigh the whole of this evidence in respect to each one of the defendants. Note the intellectual problem with which each of the good men was confronted. Let us list every act that is done along the left of a page; let us list the name of the several defendants across the top of the page. Then down the columns a checkmark is made every time a specific act is proved against a particular defendant. You can see the intricate problem in imputation which is presented. And since twelve true men are sitting and the judgment must be unanimous, the checkmarks must go down in the same places.

The Association and the Society has taken an appeal to the Circuit Court. If they lose there, they will probably appeal to the United States Supreme Court. As to success, these can at this time be only an opinion; and in speculation upon what courts will do, doctors are every bit as good as lawyers. The best chance for the defense would seem to be to set their argument in reverse, insist that physicians are tradesmen, and claim whatever immunities have been accorded to trade unions. The Norris-LaGuardia Act, with its cloak of protection for "collective activities," is a possible refuge, and the recent decision in *U. S.* v.

*Hutchinson* might prove a sanctuary if physicians can prove to the court that they belong under an umbrella erected for the carpenters' union. But, since benefit of clergy has gone, it is hard to see where else they can find an immunity for the profession.* After all these years the case is still unfinished business—and we shall see what we shall see.

In conclusion, may I append two or three personal comments. First, nobody is called upon to like Group Health. Physicians are free to talk about it, write about it, damn it just as much as they please. But when they combine to dictate to hospitals that members shall not be put upon their staffs whose sole offense is active participation in a new form of medical organization, that is going a little bit too far. Persuasion is one thing, a concerted boycott something else again. Nor is it quite persuasion to ask for immunity for doctors in respect to conduct that would not be tolerated on the part of big businessmen.

Second, it seems to me almost mediaeval to get a question of this kind settled by resort to the courts. Surely some reference ought to be found a little more modern than a norm of restraint of trade whose meaning was fixed in the law at least as early as 1621. Nor does an interminable legal process, in which a case shuttled around the courts for years, appear an ideal way of deciding how far an organized group of physicians may go in giving effect to their views.

Third, the distinctive character of the physician's service should have greater recognition than has been accorded it here. It is not like things which are bought and sold; it is not even like other services. Any one of you can draw up a catalogue of differences; a couple of items is enough to drive home the point. One is that the practice of medicine is essentially a public—even if not a govermental—office. In your dealings with us a doctor is not a stranger that we meet and bargain with at arm's length. We as laymen have little capacity to judge the quality of your work. In the very nature of things you hold an office in trust; you must protect our interests as well as your own. Two, medical services cannot be marketed as are ordinary goods. There is no unit of weight, length, time, by which a doctor's work for us can be measured. An hour with an expert diagnostician is worth a hundred hours with a routine practitioner. Medicine is an art; the mark of art is quality; quality cannot be measured. In a word, in appraising medicine, the techniques of the market are out.

Finally, the question of the economic arrangements under which medicine is to be practiced is insistent. In the instant case the Government took the position that as between "private practice" and group health it played no favorites; that its demand was only for a fair field and no favors. And to the same effect the judge charged the jury. But neither physicians nor the great laity they serve can afford so Olympian an attitude. The private practice of old has, whether you like it or not, been modified beyond recognition. New economic arrangements have appeared under which people have access to the facilities of health. Of change there is no better evidence than that Group Health could not carry on without access to hospitals and to specialists with whom they could consult. Change has come, yet it has been little directed. The old is departing; yet there is no new order to replace it.

The plain truth is that the economic organization in medicine is backward compared to its technology. Private practice is no longer adequate to the needs of the nation; and I agree with you that medicine lends itself more clumsily than almost any other service to a regimented system under state control. Somewhere in between the answer lies; as the economics of medicine is brought up to date, invention must get in its work. The professional independence of the physician must be retained; yet his work must be set within arrangements which bring the requisites of well-being to the great mass of the American people at prices they can afford to pay. If I may restore to currency an old term, the task is, amid the modern condition of life, to devise ways and means by which the doctor becomes again the great personal instrument of "the common health."

*One, at least in a footnote, may be permitted to remark that it hardly seems consistent to argue (1) that medicine is not a trade, and (2) that a medical society is entitled to the legal immunity of a trade union.

MSMS

Routine collapse therapy of minimal pulmonary tuberculosis is not justified. Conservative therapy is the treatment of choice. From 75 to 80 per cent of the cases (studied) resolve or fibrose and become stable with bed rest and remain well.—I. D. Bobrowitz, M.D., *Amer. Rev. Tuber.*, March, 1942.

# EDITORIAL

## AN OBJECTION

■ CONSIDERABLE publicity attended the assignment of a prominent conscientious objector to the medical corps of the United States Army after his change of heart.

To the general public this would intimate that the men of the medical corps are in the light of non-participants in this war which exemplifies our antagonism to regimentation and pressure tactics. *The War Department should be cognizant of the fact that besides being doctors the members of our profession are men and American citizens.*

History is replete with examples of active participation in battle by officers and enlisted men of the medical department in previous wars. Many instances of bravery in actual combat are listed among doctors in service. The odium of this assignment and its attendant publicity is intolerable to the ultimate morale of the medical department.

**Thousands of physicians will work and fight in any manner in combat or in the hospital that a democratic type of government shall continue. Their service branch should not be the dumping ground for those few whose selfish desires are paramount to freedom.**

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## THE KELLOGG FOUNDATION REPORTS

■ "* * * THE promotion of health education and welfare of mankind but principally of children and youth directly or indirectly." That aim represents the basis for the establishment of the Kellogg Foundation. The means of achieving this end are, and should be, fixed in the mind of the medical man as it provides a preview of world changes in medical service.

The Foundation's first problem came in the decision of the board of trustees to use the resources, mainly, by the application of knowledge rather than through research or relief. "Nothing seems quite so important as finding ways and means to help the average citizen apply the knowledge that had already been won for him." The medical man has long been too interested in new developments and outstanding improvements in the medical care of the sick. A desire for newer knowledge is to be commended but most doctors have been unable to assimilate the established methods in the rush for the untried. Simultaneously, the patient has lagged far behind in his appreciation of the possibilities of first-class medical service. In the mad rush for the newest knowledge the average practitioner has been too busy to explain to his patients the accepted truths and known forms of prevention and cure.

The Foundation then rightly assumed that "the health and welfare of the children in the area * * * are the responsibilities of the men and women in that area. The Foundation's mission was to help them, not to substitute for them." Mr. Kellogg believed it possible to educate adults, and that the education of the adult would make the training of the child in a proper attitude toward health, a more simple problem.

We as physicians feel that we are the force mainly to be concerned in the teaching of health and health methods. In a previous generation, free from complicated politico-economic changes, the dissemination of this knowledge was left in the physician's hands. Now the teacher, the dairyman, the service club, the newspaper staff, the pastor and the parents are all taking a definite interest in health. To some colleagues this implies a loss of prestige and leadership. It would appear that the converse is true.

*The primary knowledge must come from the medical profession. It is indeed heartening to find available for help those whose training and aptitude toward education are more pronounced than that of the practitioner. Their interest should be nurtured.*

In these endeavors the trustees of the Kellogg Foundation have shown the way to the medical profession and it is a clear direct route to the end we wish to attain. Enlightenment of the auxiliary branches of pedagogy, both formal and informal, will protect the lifeline of both the doctor and the nation. Seizure of every opportunity to positively direct the patient and his contacts will guarantee the independence of health and its purveyors. The profession cannot do it alone but can do it with the willing aid of its partners in community welfare.

The W. K. Kellogg Foundation has shown the way. Let us not deviate from the course.

# Medical Recruiting Board

EARLY in May, the Army set up a Medical Recruiting Board in Michigan, which, in coöperation with the state Procurement and Assignment Committee, is processing applicants for appointment and granting the commissions on the spot. The Procurement and Assignment Committee passes upon the availability of physicians and their professional qualifications. The Medical Recruiting Board in Michigan, as the direct representative of the Surgeon General and the Adjutant General of the Army, passes on the physical fitness and acceptability of physicians for the commissions.

Through this streamlining of medical recruitment, commissions are being granted in a matter of days rather than months as in the past. The vital needs of the Army (5,000 Doctors of Medicine immediately) are being met. Hundreds of applicants are being submitted by physicians and scores of commissions are being granted weekly in Michigan.

The profession's own program of procurement, on a voluntary basis, is functioning satisfactorily. By the end of 1942, an additional 15,000 medical officers plus 6,500 Air Corps physicians will be needed. The medical profession will meet this demand in the same patriotic manner that has characterized its actions in all similar emergencies in the history of our country.

Henry R Carstens

President, Michigan State Medical Society

President's

Page

## PRACTICE OF MEDICINE BY INDUSTRIAL NURSES AND FIRST AID PERSONNEL DEFINED BY MICHIGAN ATTORNEY GENERAL

**Neither nurses nor others who are employed in first aid departments may remove any foreign body from the eye and/or hand of an employe if the foreign body has penetrated the tissue. Nor can they prescribe or administer cold tablets or other medicine unless under the immediate and direct supervision of a physician.**

J. Earl McIntyre, M.D., Secretary
Michigan State Board of Registration in Medicine,
Lansing, Michigan

Opinion 23624

Dear Dr. McIntyre:

You have asked for an opinion from this office in accordance with the request of Wm. J. Burns, Executive Secretary of the Michigan State Medical Society, upon the question as to whether nurses employed in industrial plants may remove foreign bodies such as steel from the eyes and fingers of an employe and may prescribe cold tablets and medicine. We shall address this opinion to you and you may forward copies to the State Medical Society or to others who may present the same question.

Section 14.539, Michigan Statutes Annotated defines as follows:

"In this act, unless otherwise provided, the term 'practice of medicine' shall mean the actual diagnosing, curing or relieving in any degree, or professing or attempting to diagnose, treat, cure or relieve any human disease, ailment, defect, or complaint, whether of physical or mental origin, by attendance or by advice, or by prescribing or furnishing any drug, medicine, appliance, manipulation or method, or by any therapeutic agent whatsoever."

Section 14.687, Michigan Statute Annotated provides as follows:

"Any person who shall have complied with the provisions of this act and received a certificate of registration to practice as a trained, certified, or registered nurse shall be styled and known as a 'Registered Nurse' and shall be entitled to append the letters 'R.N.' to his or her name. Nothing contained in this paragraph shall be considered as conferring any authority to practice medicine or to undertake treatment or cure of disease. * * *"

Section 14.690, Michigan Statutes Annotated defines the term "Registered Nurse" as follows:

"Unless otherwise provided in this act the term registered nurse is defined as one who has been authorized by the state to nurse or minister to the sick or those afflicted with any human ailment, defect, or complaint, whether of physical or mental origin, by attendance or advice by the use of any therapeutic agent, under the supervision and direction of a registered physician."

The removal of any foreign body from the eye or hand of an employe may or may not involve an act of surgery. If the foreign body has not penetrated the tissue no surgery is involved in removing it. However, if such foreign body has penetrated the tissue to the slightest degree the removal of the foreign body would involve surgery and the nurse must not endeavor to remove it unless under the immediate and direct supervision of a physician.

The prescribing or administering of cold tablets or other medicine in any form must be likewise under the immediate and direct supervision of a physician.

The foregoing likewise applies as well to those who are not registered nurses or licensed physicians and who are employed in first aid departments. Industrial plants should strictly adhere to the ruling as above outlined. Otherwise violation of the Medical Practice Act would occur in each instance and the person violating the act would be amenable to prosecution.

Very truly yours,
Herbert J. Rushton
Attorney General
H. Glen Dunn
Deputy Attorney General

May 6, 1942

## THE WORK OF MICHIGAN'S PROCUREMENT AND ASSIGNMENT COMMITTEE

Since orders for the Army to streamline the procurement of physicians were received in May, inquiries have been made concerning the place the State Procurement and Assignment Committee holds in the picture.

The Procurement and Assignment Committee coöperates with the newly-formed Medical Recruiting Board of Michigan to supply information relative to the qualifications of volunteers and the need for their services in the community. Primarily, each applicant for a commission must be a citizen, a graduate of an approved medical school, licensed to practice in this state, and must have served at least one year's internship in an approved hospital. In addition, the physician must be in the age group (up to 45 years at the present time).

After a physician has applied for a commission to the Medical Recruiting Board of Michigan, 320 Federal Building, Detroit, he is given a physical examination. Concurrently the Board certifies his name to the State Procurement and Assignment Committee of which P. R. Urmston, M.D., Bay City, is Chairman. The P & A Committee promptly takes the following steps:

1. The Committee writes the applicant, inquiring if he is available immediately for military service;
2. The Committee checks with the County Medical Preparedness Committee (appointed by the county medical society) to make certain that the physician is available for service in the armed forces and also to insure that his departure will not create a hardship on the community by depleting it of needed medical service;
3. The Committee forwards the reports of the applicant and of the County Medical Preparedness Committee to the Medical Recruiting Board, to help guide it in the granting of commissions.

The aim of the Procurement and Assignment Committee is not only to provide needed personnel for the armed forces, in order that the war may be won by the United States as quickly as possible, but to make certain that no community in the state is allowed to suffer for need of medical service. The Medical Recruiting Board is lending full coöperation to the Procurement and Assignment Committee of Michigan.

**— Buy War Bonds —**

## GASOLINE RATIONED IN THE EAST

From May 15 to June 30, gasoline is being rationed in the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, that part of Florida east of the Apalachicola River, the District of Columbia, and the city of Bristol, Tennessee.

On May 6, the Office of Price Administration issued instructions for gasoline rationing in the Atlantic Seaboard area calling for sale of two to six gallons weekly to "non-essential motorists." The rationing will apply to 10,000,000 motorists in the East. It may be extended later to cover the nation.

The OPA issues three types of ration cards: ("A") for non-essential motorists; ("B") for essential users, such as defense workers, public service officials and others; and ("X") providing for unlimited usage, as by physicians and nurses, for rendering professional or nursing services.

The rationing system may be revised—or extended on July 1.

**— Buy War Bonds —**

## HOSPITALS TO PRACTICE MEDICINE?

The Hampton Bill, introduced into the New York State Assembly several months ago, would amend the State insurance laws to provide for the practice of medicine by hospitals, placing in *hospital* insurance corporations the control of rates and physicians' fees.

"When a hospital sets up inclusive rates that cover hospitalization and complete medical care, either by group hospitalization insurance or by individual case arrangements," states the *Detroit Medical News* of April 20, "serious complica-

tions for physicians ensue. Wherever physicians have discussed this subject thoroughly, such as the House of Delegates of the A.M.A., the dangers of such methods have been exposed and condemned.

"Not an unlikely result would be price competition between hospitals. Hospitals would sensibly reduce the size and the quality of the staff. Then would come the solicitation of patients. Before long there would be an inevitable adulteration in the medical and surgical services offered. The free choice of physician or surgeon would be completely out of the picture."

**— Buy War Bonds —**

## INSTITUTE ON "MEDICAL PRACTICE IN TOTAL WAR," SEPTEMBER 22

An Institute on "Medical Practice in Total War" will be presented as part of the Michigan State Medical Society annual meeting program by the MSMS Preventive Medicine Committee and its Advisory Committee on Heart and Degenerative Diseases.

The Institute will be held Tuesday, September 22, 1942, in the Pantlind Hotel, Grand Rapids, beginning with luncheon at 12 noon.

The tentative program of the Institute includes:

1. **Nutritional Problems in Wartime**
2. **Epidemic or Infectious Diseases as Influenced by War**
3. **New Aspects of War Work and Injuries (Including Burns) in Civilian and Combat Warfare**
4. **The Psychology of the Soldier and Civilian in Wartime**
5. **The Problem of Public Health in Time of War.**

The subjects will be presented by outstanding authorities from Michigan and other states, including several who have experienced at first-hand the war work done in England.

After the presentations an authoritative speaker will summarize the highlight and lectures and lead a round-table conference at which questions from the audience will be discussed.

The Institute will offer members of the profession the opportunity of attending a thoroughly organized, compact, factual course in a timely subject of importance to every Michigan practitioner.

**— Buy War Bonds —**

## KNOWLEDGE OF LEGAL METHODS

An estimated 60 per cent of all cases tried in court today involve medical testimony. Workmen's compensation, insurance, wills, malpractice, evaluation of injuries—today every active practicing physician may have to take part in a medico-legal case. Knowledge of medicine and a stock of common sense are not enough. Many practitioners have found through bitter experience that some knowledge of legal aims and methods in specific cases is essential.—*Am. Jour. Med. Jurisprudence,* May-June, 1939.

**— Buy War Bonds —**

## HOSPITAL RECORDS

In permitting access to a patient's record, the procedure should conform to the standards of conduct which physicians have prescribed for themselves with reference to the sanctity of confidential communications, according to the *Journal of the American Medical Association.** A patient cannot be denied the privilege of access to his own records, nor may this privilege be denied an attending physician, attorney, or any other person acting with his authorization and in his interest (the consent to be in writing, as a protection to the hospital). No other person should be accorded access to the records without the patient's written permission, and this rule should be rigidly enforced as against claim agents, insurance adjustors and attorneys. Any other policy would certainly serve no useful purpose.

*May 2, 1942, pp. 88-89.

**— Buy War Bonds —**

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### DRAFT REHABILITATION

Do you know that there is a rehabilitation program pending for rejected draftees?

Do you know that it is contemplated that the work will be done by the home doctors and that the draftee will be given a choice of physician?

If you wish to be on the list of physicians designated for this work, send your name to Selective Service Headquarters, Lansing, Michigan.

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### COMPENSATION FOR DRAFT BOARD DOCTORS?

Changes in the Selective Service setup, to provide pay for volunteer workers such as Draft Board members, and examining civilian doctors, are in the offing. —*The Periscope, Newsweek,* May 25, 1942.

## OUTLINE OF GENERAL ASSEMBLY PROGRAM
### 77th Annual Meeting, Michigan State Medical Society
### Grand Rapids — September, 1942

| | Wednesday<br>September 23, 1942 | Thursday<br>September 24, 1942 | Friday<br>September 25, 1942 |
|---|---|---|---|
| *A.M.*<br>9:30 to<br>10:00 | General Practice<br>Harvey B. Matthews, M.D.<br>Brooklyn, N. Y. | Obstetrics (Maternal Health)<br>Philip F. Williams, M.D.<br>Philadelphia | ON THE<br>EIGHT SECTION PROGRAMS<br>Medicine<br>J. B. Youmans, M.D., Nashville<br>Surgery<br>W. D. Gatch, M.D., Indianapolis<br>Obstetrics and Gynecology<br>W. C. Danforth, M.D., Evanston<br>Ophthalmology<br>P. A. Chandler, M.D., Boston<br>Pediatrics<br>Bronson Crothers, M.D., Boston<br>Dermatology<br>E. S. Traub, M.D., New York<br>Radiology, Pathology, Anesthesia<br>Edw. Skinner, M.D., Kansas City<br>General Practice<br>H. C. Guess, M.D., Buffalo |
| 10:00 to<br>10:30 | Surgery<br>Fred W. Rankin, M.D.<br>Lexington, Ky. | Medicine<br>Roy W. Scott, M.D.<br>Cleveland | |
| 10:30 to<br>11:00 | VIEW EXHIBITS | VIEW EXHIBITS | |
| 11:00 to<br>11:30 | Syphilology<br>J. Earl Moore, M.D.<br>Baltimore | Medicine<br>Irvine H. Page, M.D.<br>Indianapolis | |
| 11:30 to<br>12:00 | Gynecology<br>Geo. H. Gardner, M.D.<br>Chicago | Pediatrics<br>A. H. Parmelee, M.D.<br>Chicago | |
| *P.M.*<br>12:00 to<br>12:30 | Obstetrics<br>Philip F. Williams, M.D.<br>Philadelphia | General Practice<br>Elmer L. Sevringhaus, M.D.<br>Madison, Wis. | |
| 12:30 to<br>1:30 | LUNCHEON<br>VIEW EXHIBITS | LUNCHEON<br>VIEW EXHIBITS | LUNCHEON<br>VIEW EXHIBITS |
| 1:30 to<br>2:00 | Symposium on "Chemotherapy"<br>Medicine<br>H. F. Flippin, M.D.<br>Philadelphia | Ophthalmology<br>Meyer Wiener, M.D.<br>St. Louis | Otolaryngology<br>Geo. E. Shambaugh, Jr., M.D.<br>Chicago |
| 2:00 to<br>2:30 | Surgery<br>Russell D. Herrold, M.D.<br>Chicago | Pathology<br>E. T. Bell, M.D.<br>Minneapolis | Dermatology<br>L. A. Brunsting, M.D.<br>Rochester, Minn. |
| 2:30 to<br>3:00 | VIEW EXHIBITS | VIEW EXHIBITS | VIEW EXHIBITS |
| 3:00 to<br>3:30 | Pediatrics<br>Benj. W. Carey, M.D.<br>Westwood, N. J. | Anesthesia<br>Paul M. Wood, M.D.<br>New York, N. Y. | Pediatrics (Child Welfare)<br>Clifford G. Grulee, M.D.<br>Evanston, Ill. |
| 3:30 to<br>4:30 | DISCUSSION<br>CONFERENCES<br>with guest essayists | DISCUSSION<br>CONFERENCES<br>with guest essayists | 3:30 to 4:00: Medicine<br>J. Burns Amberson, M.D.<br>New York<br>4:00 to 4:30: Surgery<br>Chas. B. Puestow, M.D.<br>Chicago |
| 8:30 to<br>10:00 | PRESIDENT'S NIGHT<br>Biddle Oration<br>Floor Show Dancing | SMOKER | END OF CONVENTION |

# MICHIGAN STATE MEDICAL SOCIETY

# The 77th Annual Meeting

## GRAND RAPIDS—1942

## Official Call

The Michigan State Medical Society will convene in Annual Session in Grand Rapids, Michigan, on September 21-22-23-24-25, 1942. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

HENRY R. CARSTENS, M.D., President
A. S. BRUNK, M.D., *Council Chairman*
P. L. LEDWIDGE, M.D., *Speaker*
G. H. SOUTHWICK, M.D., *Vice Speaker*
Attest: L. FERNALD FOSTER, M.D., *Secretary*

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## House of Delegates

**Monday and Tuesday, September 21-22, 1942**
**Pantlind Hotel, Grand Rapids**

### MONDAY, SEPTEMBER 21

6:00 p.m. Registration of Delegates
6:30 p.m. Speaker's Reception, Swiss Room
7:00 p.m. Delegates' Dinner, Colonial Room
8:00 p.m. First Meeting, Ball Room

### TUESDAY, SEPTEMBER 22

10:00 a.m. Second Meeting, Ball Room
8:00 p.m. Third Meeting, Ball Room
(Such additional meetings as necessary will be held Wednesday, September 23, beginning at 10:00 a.m.)

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## HOUSE OF DELEGATES, 1942

**Ball Room, Pantlind Hotel, Grand Rapids**

### ORDER OF BUSINESS*

### MONDAY, SEPTEMBER 21

8:00 p.m.—First Meeting

1. Call to order by Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees:
   - On Officers' Reports
   - On Reports of The Council
   - On Reports of Standing Committees
   - On Reports of Special Committees
   - On Amendments to Constitution and By-laws
   - On Resolutions
5. Speaker's Address—P. L. Ledwidge, M.D., Detroit
6. President's Address—Henry R. Carstens, M.D., Detroit
7. President-Elect's Address—Howard H. Cummings, M.D., Ann Arbor
8. Annual Report of The Council—A. S. Brunk, M.D., Detroit, Chairman
9. Report of Delegates to American Medical Association—Henry A. Luce, M.D., Chairman
10. Presentation of emblem to former Speaker, O. D. Stryker, M.D., Fremont.
11. Resolutions†
12. Reports of Standing Committees:
    - (a) Legislative Committee
    - (b) Committee on Distribution of Medical Care
    - (c) Representatives to Joint Committee on Health Education
    - (d) Medical-Legal Committee
    - (e) Preventive Medicine Committee
      - Cancer
      - Maternal Health
      - Syphilis Control
      - Tuberculosis Control
      - Industrial Health
      - Mental Hygiene
      - Child Welfare
      - Iodized Salt
      - Heart and Degenerative Diseases
    - (f) Committee on Postgraduate Medical Education
    - (g) Committee on Public Relations
    - (h) Committee on Ethics
13. Reports of Special Committees:
    - (a) Committee on Nurses' Training Schools
    - (b) Conference Committee on Pre-licensure Medical Education
    - (c) Radio Committee
    - (d) Advisory Committee to Woman's Auxiliary
    - (e) Scientific Work Committee
    - (f) Professional Liaison Committee
    - (g) Medical Preparedness Committee

Recess

*See the Constitution, Article IV, and the By-laws, Chapter 3, on the "House of Delegates."

†All Resolutions, special reports, and new business shall be presented in duplicate (By-laws, Chapter 3, Section 7-n).

## TUESDAY, SEPTEMBER 22

10:00 a.m.—Second Meeting

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Greetings from the Allied Professions
4. Unfinished Business
5. New Business†
6. Reports of Reference Committees:
   (a) On Officers' Reports
   (b) On Reports of The Council
   (c) On Reports of Standing Committees
   (d) On Reports of Special Committees
   (e) On Amendments to Constitution and By-laws
   (f) On Resolutions

Recess

## TUESDAY, SEPTEMBER 22

8:00 p.m.—Third Meeting

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Unfinished Business
4. Supplementary Report from The Council
5. Supplementary Report from Reference Committees
6. Elections:
   (a) Councilors:
   7th District—T. E. DeGurse, M.D., Marine City—Incumbent
   8th District—W. E. Barstow, M.D., St. Louis—Incumbent
   9th District—E. F. Sladek, M.D., Traverse City—Incumbent
   10th District—Roy C. Perkins, M.D., Bay City—Incumbent
   (b) Delegates to American Medical Association:
   Henry A. Luce, M.D.,—Detroit—Incumbent
   T. K. Gruber, M.D., Eloise—Incumbent
   Claude R. Keyport, M.D., Grayling—Incumbent
   (c) Alternate Delegates to American Medical Association:
   Carl F. Snapp, M.D., Grand Rapids—Incumbent
   C. S. Gorsline, M.D., Battle Creek—Incumbent
   R. H. Denham, M.D., Grand Rapids—Incumbent
   (d) President-elect
   (e) Speaker of House of Delegates
   (f) Vice-speaker of House of Delegates

Adjournment

†All Resolutions, special reports, and new business shall be presented in duplicate (By-laws, Chapter 3, Section 7-n).

## DELEGATES TO MSMS HOUSE OF DELEGATES

### (Names of Alternates Appear in Italics)

**Allegan**
R. J. Walker, M.D., Saugatuck
*H. H. Johnson, M.D., Martin*

**Alpena-Alcona-Presque Isle**
W. E. Nesbitt, M.D., Alpena

**Barry**
Gordon F. Fischer, M.D., Hastings
*J. K. Altland, M.D., Hastings*

**Bay-Arenac-Iosco**
C. L. Hess, M.D., Davidson Building, Bay City
Fred Drummond, M.D., Kawkawlin
*J. H. McEwan, M.D., Davidson Building, Bay City*
*R. N. Sherman, M.D., Phoenix Building, Bay City*

**Berrien**
A. F. Bliesmer, M.D., St. Joseph
*Donald Thorup, M.D., Benton Harbor*

**Branch**
R. L. Wade, M.D., Coldwater
*Samuel Schultz, M.D., Coldwater*

**Calhoun**
A. T. Hafford, M.D., Albion
Harvey C. Hansen, M.D., Battle Creek
*George W. Slagle, M.D., Battle Creek*
*A. A. Humphrey, M.D., Battle Creek*

**Cass**
S. L. Loupee, M.D., Dowagiac
*K. C. Pierce, M.D., Dowagiac*

**Chippewa-Mackinac**
L. M. McBryde, M.D., Sault Ste. Marie
*F. W. Mertaugh, M.D., Sault Ste. Marie*

**Clinton**
G. H. Frace, M.D., St. Johns
*Dean W. Hart, M.D., St. Johns*

**Delta-Schoolcraft**
J. J. Walch, M.D., Escanaba
*W. A. Lemire, M.D., Escanaba*

**Dickinson-Iron**
W. H. Alexander, M.D., Iron Mountain
*E. B. Anderson, M.D., Iron Mountain*

**Eaton**
Don V. Hargrave, M.D., Eaton Rapids
*Paul Engle, M.D., Olivet*

**Genesee**
D. R. Brasie, M.D., 907 Citizens Bank Bldg., Flint
Frank E. Reeder, M.D., 808 Genesee Bank Bldg., Flint
Henry Cook, M.D., 400 Sherman Bldg., Flint
R. D. Scott, M.D., 1215 Detroit St., Flint
*A. Dale Kirk, M.D., 300 E. First St., Flint*
*T. S. Conover, M.D., 400 Sherman Bldg., Flint*
*F. Johnson, M.D., 319 Dryden Bldg., Flint*
*C. W. Colwell, M.D., 706 Citizens Bank Bldg., Flint*

**Gogebic**
W. E. Tew, M.D., Bessemer
*H. T. Nezworski, M.D., Ramsay*

**Grand Traverse-Leelanau-Benzie**
Ben B. Bushong, M.D., Traverse City
*H. L. Weitz, M.D., Traverse City*

**Gratiot-Isabella-Clare**
M. G. Becker, M.D., Edmore
*W. L. Harrigan, M.D., Mt. Pleasant*

**Hillsdale**
L. W. Day, M.D., Jonesville
*O. G. McFarland, M.D., North Adams*

**Houghton-Baraga-Keweenaw**
A. C. Roche, M.D., Calumet
*Alfred LaBine, M.D., Houghton*

**Huron**
C. W. Oakes, M.D., Harbor Beach
*None named*

**Ingham**
L. G. Christian, M.D., 108 E. St. Joseph St., Lansing
C. F. DeVries, M.D., 320 Townsend, Lansing
T. I. Bauer, M.D., 301 Seymour, Lansing
*R. S. Breakey, M.D., 1211 City National Bldg., Lansing*
*R. L. Finch, M.D., 112 W. Hillsdale, Lansing*
*C. S. Davenport, M.D., St. Lawrence Hospital, Lansing*

**Ionia-Montcalm**
W. L. Bird, M.D., Greenville
*L. L. Marston, M.D., Lakeview*

**Jackson**
H. A. Brown, M.D., 701 Reynolds Bldg., Jackson
J. J. O'Meara, M.D., 608 Peoples Bank Bldg., Jackson
*C. S. Clarke, M.D., 605 Dwight Bldg., Jackson*
*C. R. Dengler, M.D., 305 Carter Bldg., Jackson*

**Kalamazoo**
Louis W. Gerstner, M.D., 420 John St., Kalamazoo
Hugo Aach, M.D., 1318 American National Bank Bldg., Kalamazoo
*Paul Koestner, M.D., 1303 Portage, Kalamazoo*
*Fred M. Doyle, M.D., 914 American National Bank Bldg., Kalamazoo*

**Kent**
George Howard Southwick, M.D., 55 Sheldon, S.E., Grand Rapids
A. B. Smith, M.D., Metz Building, Grand Rapids
Paul W. Kniskern, M.D., Medical Arts Building, Grand Rapids
A. V. Wenger, M.D., Loraine Bldg., Grand Rapids
Carl F. Snapp, M.D., Medical Arts Bldg., Grand Rapids
*Leon DeVel, M.D., 321 Metz Bldg., Grand Rapids*
*Daniel DeVries, M.D., 1414 Eastern, S.E., Grand Rapids*
*W. Clarence Beets, M.D., 2221 Jefferson Drive, Grand Rapids*
*Ward Chadwick, M.D., Medical Arts Bldg., Grand Rapids*
*Wm. Bettison, M.D., 412 Medical Arts Bldg., Grand Rapids*

**Lapeer**
D. J. O'Brien, M.D., Lapeer
*H. M. Best, M.D., Lapeer*

**Lenawee**
M. R. McGarvey, M.D., Blissfield
*G. C. Hall, M.D., Adrian*

**Livingston**
D. C. Stephens, M.D., Howell
*H. G. Huntington, M.D., Howell*

**Luce**
Henry E. Perry, M.D., Newberry
*Robert E. Spinks, M.D., Newberry*

**Macomb**
D. Bruce Wiley, M.D., Utica
*A. B. Bower, M.D., Armada*

**Manistee**
E. A. Oakes, M.D. Manistee
*None named*

**Marquette-Alger**
V. Vandeventer, M.D., Ishpeming
*R. A. Burke, M.D., Palmer*

**Mason**
W. S. Martin, M.D., Ludington
*Chas. A. Paukstis, M.D., Ludington*

**Mecosta-Osceola-Lake**
Gordon Yeo, M.D., Big Rapids
*Paul B. Kilmer, M.D., Reed City*

**Medical Society of North Central Counties**
C. R. Keyport, M.D., Grayling
*Richard Peckham, M.D., Gaylord*

**Menominee**
H. T. Sethney, M.D., Menominee
*F. J. Dewane, M.D., Menominee*

**Midland**
Irvin Howe, M.D., Midland
*Robert Ballmer, M.D., Midland*

**Monroe**
D. C. Denman, M.D., Monroe
*V. L. Barker, M.D., Monroe*

**Muskegon**
E. N. D'Alcorn, M.D., Michigan Theatre Blg., Muskegon
Shattuck W. Hartwell, M.D., 706 Hackley Union Bank Bldg., Muskegon
*Leland E. Holly, M.D., 876 North Second St., Muskegon*
*Henry J. Pyle, M.D., 506 Muskegon Building, Muskegon*

**Newaygo**
O. D. Stryker, M.D., Fremont
*W. H. Barnum, M.D., Fremont*

**Northern Michigan**
Fred Mayne, M.D., Cheboygan
*G. B. Saltonstall, M.D., Charlevoix*

**Oakland**
H. B. Barker, M.D., Riker Bldg., Pontiac
C. T. Ekelund, M.D., Riker Bldg., Pontiac
V. C. Abbott, M.D., 32 Auburn, Pontiac
*Robert H. Baker, M.D., Peoples Bank Bldg., Pontiac*
*J. W. Christie, M.D., Riker Bldg., Pontiac*
*J. E. Church, M.D., 35 W. Huron, Pontiac*

**Oceana**
M. G. Wood, M.D., Hart
*Wm. Heard, M.D., Pentwater*

**Ontonagon**
W. F. Strong, M.D., Ontonagon
*H. B. Hogue, M.D., Ewen*

**Ottawa**
A. E. Stickley, M.D., Coopersville
*R. H. Nichols, M.D., Holland*

**Saginaw**
Clarence E. Toshach, M.D., 333 S. Jefferson, Saginaw
L. C. Harvie, M.D., 405 Weichmann Bldg., Saginaw
*A. C. Button, M.D., 514 Hayden Ave., Saginaw*
*Richard S. Ryan, M.D., 623 S. Park St., Saginaw*

**St. Clair**
W. H. Boughner, M.D., Algonac
*D. W. Patterson, M.D., 622 Huron Ave., Port Huron*

**St. Joseph**
R. A. Springer, M.D., Centerville
*Fred R. Reed, M.D., Three Rivers*

**Sanilac**
R. K. Hart, M.D., Croswell
*H. V. Norgaard, M.D., Marlette*

**Shiawassee**
I. W. Greene, M.D., Owosso
*W. F. Shepherd, M.D., Owosso*

**Tuscola**
T. E. Hoffman, M.D., Vassar
*F. J. Gugino, M.D., Reese*

**Van Buren**
Wm. R. Young, M.D., Lawton
*Wm. Bope, M.D., Decatur*

**Washtenaw**
John A. Wessinger, M.D., 339 N. Washington, Ann Arbor
Dean W. Myers, M.D., 317 S. State St., Ann Arbor
Wm. M. Brace, M.D., University Health Service, Ann Arbor
Hugh M. Beebe, M.D., St. Joseph Mercy Hospital, Ann Arbor
*Leo A. Knoll, M.D., 227 E. Liberty, Ann Arbor*
*John S. DeTar, M.D., Milan*
*H. B. Britton, M.D., 23 N. Washington, Ypsilanti*
*M. E. Soller, M.D., 115 Pearl, Ypsilanti*

**Wayne**
W. D. Barrett, M.D., David Whitney Bldg., Detroit
G. L. McClellan, M.D., 2501 W. Grand Blvd., Detroit
L. J. Morand, M.D., David Whitney Bldg., Detroit
Stanley W. Insley, M.D., Maccabees Building, Detroit
Roger V. Walker, M.D., David Whitney Bldg., Detroit
Joseph H. Andries, M.D., David Whitney Bldg., Detroit
Wm. H. Honor, M.D., 2966 Biddle, Wyandotte
A. W. Blain, M.D., 2201 E. Jefferson, Detroit
Edw. D. Spalding, M.D., Maccabees Bldg., Detroit
Chas. S. Kennedy, M.D., 10 Peterboro, Detroit
Grover C. Penberthy, M.D., David Whitney Bldg., Detroit
Ira G. Downer, M.D., 2201. E. Jefferson, Detroit
H. W. Plaggemeyer, M.D., David Whitney Bldg., Detroit
V. N. Butler, M.D., Fisher Bldg., Detroit
Milton A. Darling, M.D., Fisher Bldg., Detroit
Geo. B. Hoops, M.D., Fisher Bldg., Detroit
R. A. C. Wollenberg, M.D., David Whitney Bldg., Detroit
T. G. Amos, M.D., 2842 W. Grand Blvd., Detroit
Louis J. Gariepy, M.D., 16401 Grand River Ave., Detroit
W. B. Harm, M.D., 5884 W. Vernor Highway, Detroit
C. J. Jentgen, M.D., 7338 Woodward, Detroit
Ralph H. Bookmyer, M.D., 17198 Oak Drive, Detroit
Bruce C. Lockwood, M.D., David Whitney Bldg., Detroit
Glenn L. Coan, M.D., 114 Maple, Wyandotte
S. A. Flaherty, M.D., 6058 W. Fort St., Detroit
Allan McDonald, M.D., Maccabees Bldg., Detroit
Edwin G. Bovill, M.D., 9203 Grand River, Detroit
Wm. S. Gonne, M.D., David Whitney Bldg., Detroit
R. L. Novy, M.D., Maccabees Bldg., Detroit
Edward M. Vardon, M.D., 12897 Woodward, Detroit
Edward D. King, M.D., 5455 W. Vernor Highway, Detroit
A. V. Forrester, M.D., 16491 Woodward, Detroit
Andrew H. Bracken, M.D., 13102 W. Warren, Detroit
James M. Kennary, M.D., 16701 E. Warren, Detroit
A. E. Catherwood, M.D., David Whitney Bldg., Detroit
Hazen L. Miller, M.D., Maccabees Bldg., Detroit
David I. Sugar, M.D., 17 Brady Ave., Detroit
C. D. Brooks, M.D., 113 Martin Place, Detroit
*B. H. Priborsky, M.D., Maccabees Bldg., Detroit*
*E. L. Chapman, M.D., 13534 Woodward, Detroit*
*Henry A. Luce, M.D., 629 David Whitney Bldg., Detroit*
*Harry F. Dibble, M.D., David Whitney Bldg., Detroit*
*Victor E. Nelson, M.D., 6345 Fenkell, Detroit*
*A. H. Whittaker, M.D., 1427 E. Jefferson, Detroit*
*Ben W. Clark, M.D., 206 E. Grand River, Detroit*
*J. M. Robb, M.D., David Whitney Bldg., Detroit*
*F. G. Buesser, M.D., David Whitney Bldg., Detroit*
*T. K. Gruber, M.D., Eloise Hospital, Eloise*
*Douglas Donald, M.D., David Whitney Bldg., Detroit*
*Wm. J. Stapleton, Jr., M.D., David Whitney Bldg., Detroit*
*L. J. Hirschman, M.D., 7815 E. Jefferson, Detroit*
*R. C. Andries, M.D., David Whitney Bldg., Detroit*
*W. B. Cooksey, M.D., 62 W. Kirby, Detroit*
*R. C. Jamieson, M.D., David Whitney Bldg., Detroit*
*Chas. F. Dutchess, M.D., Parke, Davis & Co., Detroit*
*Ralph H. Pino, M.D., David Whitney Bldg., Detroit*
*Richard M. McKean, M.D., David Whitney Bldg., Detroit*
*Wm. Bromme, M.D., 10 Peterboro, Detroit*
*C. E. Simpson, M.D., Kales Bldg., Detroit*
*Gaylord S. Bates, M.D., David Whitney Bldg., Detroit*
*Eugene A. Osius, M.D., David Whitney Bldg., Detroit*
*Donald C. Beaver, M.D., 17537 Parkside, Detroit*
*L. T. Henderson, M.D., 13038 E. Jefferson, Detroit*
*James H. Dempster, M.D., 5761 Stanton, Detroit*
*C. K. Hasley, M.D., David Whitney Bldg., Detroit*
*Wm. P. Woodworth, M.D., 2501 W. Grand Blvd., Detroit*
*E. G. Krieg, M.D., David Whitney Bldg., Detroit*
*Arch Walls, M.D., 12065 Wyoming, Detroit*
*E. R. Witwer, M.D., 838 Berkshire Rd., Grosse Pointe Park*
*Russell W. Alles, M.D., Fisher Bldg., Detroit*
*B. L. Connelly, M.D., Maccabees Bldg., Detroit*
*Jack Agins, M.D., 1910 Hazelwood, Detroit*
*H. P. Cushman, M.D., David Whitney Bldg., Detroit*
*L. W. Hull, M.D., David Whitney Bldg., Detroit*
*Wm. S. Reveno, M.D., Fisher Bldg., Detroit*
*A. O. Brown, M.D., Maccabees Bldg., Detroit*

**Wexford-Missaukee**
W. Joe Smith, M.D., Cadillac
*J. F. Gruber, M.D., Cadillac*

**TWO-DAY SESSION OF HOUSE OF DELEGATES**

The House of Delegates of the Michigan State Medical Society will hold a two-day session in 1942, beginning with the Speaker's Reception and Delegates' Dinner on Monday, September 21, 6:30 p.m. (See page 502). The first business meeting of the House will be held in the Ballroom of the Pantlind Hotel at 8:00 p.m.

The House will meet Tuesday, September 22 at 10:00 a.m. and at 8:00 p.m. The intervals between meetings of the House of Delegates have been spaced to permit the Reference Committees ample time to transact all business referred to them.

Such additional meetings as may be necessary will be held Wednesday, September 23, beginning at 10:00 a.m.

Members of the House of Delegates are invited to write the Pantlind Hotel, Grand Rapids, concerning the type of hotel accommodations they desire; reservations for Delegates were made by the State Society early in June.

# Communication

April 21, 1942

Dear Doctor Holmes:

I saw a picture of a brother physician the other day in Naval uniform, complete with a sword. Since then I have heard of several others who are thinking of joining the Navy, stimulated perhaps, by the elegant appearance of my colleague and the sword.

Now, I think the doctor is to be commended for choosing the branch of the service in which he thinks he can do the most good, and if the others who are following him have made up their minds for the same reasons they should be equally commended. However, somebody should point out that we are raising an army, which will be much greater in numbers than the Navy, and will need a proportionately greater number of medical officers. Now, if the brethren at home are joining the Navy because they like sailing, it should be brought to their attention that the Army is seeing a lot of water too, and without any of the responsibility of taking care of a great big ship. And further, army officers don't have to lug around any swords. They have proved to be a distinct handicap. Japs have a fancy for collecting swords, and their eyes are attracted by anything bright and shiny at which they always want to shoot, so the olive drab uniform, or khaki, with its dull color and with all shiny insignia removed, becomes almost essential to health. I hope you will find some way to bring these points to the attention of the prospective soldiers and sailors in order that they may give the problem due consideration before arriving at a decision.

Seriously, do you think any of the members who might get into the Army would be interested in knowing what is likely to happen to them during the first few weeks? If so, you can make them acquainted with this.

When an officer reports for his final "type B" physical examination at some large army dispensary or hospital he goes in civilian clothes, but when he reports to his station for duty he should be in uniform. His orders will state "report to the commanding officer, Camp X"; or "commanding officer, Y hospital." That is army language for saying, "drop in on the adjutant," who is a sort of combination office and personnel manager. The adjutant may or may not take you in and present you to the commanding officer. In any case, you should be in uniform and should salute and give your name.

Uniforms are obtainable at all army post exchanges, as well as from several commercial uniform companies, such as Chicago Military Stores in Chicago. The uniform varies with the climate and geographical location, and to some extent with the personal ideas of the Corps area commanding General. A good general rule is, don't buy any more than the minimum until you get settled. This minimum, which will do in any part of the United States is:

One officer's cap (the kind with a visor).
One olive drab blouse, with one set of insignia of your rank, and one set of medical department insignia. Wear the US on the lower part of each side of the collar as it joins the lapel, and the medical department caduceus on the upper part of the lapels just below the US.
One pair officer's trousers, light grey.
One olive drab belt for the blouse (the Sam Brown belt is out)
One officer's web belt for the trousers.
One or two light tan officer's shirts.
One pair of officer's shoes. (Any tan shoes or oxfords without any decoration across the toes. Shoes are much better than oxfords if you are to do any walking, and you probably will, even if you have been promised a nice desk job.)
One or two pairs of tan socks.

Anything else, such as khaki uniforms, worn in the tropics in summer, white dress uniforms, also worn in the tropics in summer after five p.m., overcoat, rain coat, sleeping bag, etc., you can get as you need them. Gas masks will be issued without cost, and so will steel helmets.

The commanding officer will assign you to some hospital ward or department for duty. This will most likely not be permanent, but for the purpose of making you familiar with army routine. Or, you may be sent at once to one of the several army schools organized to familiarize new officers with their duties as army officers, rather than their duties as doctors, which they are supposed to know before becoming commissioned. Here let me say that a medical officer is always "commissioned" by the president, which is a form of appointment, while a soldier is enlisted, which is a procedure resembling a contract for employment. He is, in fact, hired for a period of three years, or for the duration, as at present.

Following your assignment to duty you will be given a day or two to get settled, find a place to live (if you do not live at the post) make any necessary purchases, and generally get acquainted.

The Army has customs which you will do well to pick up and observe, even if you don't approve. One of these is to start every conversation with a superior officer with the word "Sir." Another is to salute all superior officers when you meet them outdoors, and even more important, return salutes of all enlisted men and other officers. If you observe these simple rules your commanding officer will think you are a good officer and will be more inclined to give you a good assignment. If you don't, nobody will say anything, but everybody will think of you in the same way you would of someone who keeps his hat on in church.

Another aid to getting along in the Army and influencing soldiers is to address all non-commissioned officers by their rank, as "Corporal" or "Sergeant." This is handy because you don't need to know their names and you can see their rank on their sleeves. There are about eight different grades of sergeants; master sergeant, first sergeant, staff sergeant, technical sergeant, and so on, but you call them all "Sergeant." You address a private as simply, "Soldier," or, if you know his name, "Private Smith." *Whatever you do, don't ever call a non-commissioned officer or a soldier by his last name alone.*

It formerly was the custom for all new officers arriving at a post to call on all the old officers. This has been done away with for the duration because the number of officers at some posts has increased so greatly as to make it impossible. However, look around and if a few calls are being made, or if you feel like calling on someone in particular, do it. If some junior officer calls on you, be sure to return it, or else invite him to the officers' club.

Most large posts operate officers' clubs which all officers are expected to join. The dues are usually three dollars or less a month. For this you can go to free dances several times a week, sometimes a free lunch or dinner in honor of some visiting general, and sometimes you can buy liquor at a reduced price. In any case, the meals are very reasonable. Some officers' clubs have sleeping accommodations which you are entitled to use for a limited time.

If you are ordered to a post having an officers' club, it would be wise to inquire ahead of time if you can stay at the club while you are looking for other quarters. It is usually much less expensive than a hotel.

If you are ordered some distance from home and intend to take your car, quickly calculate the time it takes to drive. If you have not been allotted enough time to drive, write back and ask for authority to use "a private conveyance." This will give you more time. If you don't arrive at your station within the time the railroad ordinarily makes it, your pay will be docked to the extent of the time lost. This has caused a great deal of dissatisfaction among some officers. Orders to travel have been written hastily, and, in some cases, they read as if they had been drafted by someone unfamiliar with the job. This is probably true, the unfamiliar one is another reserve officer like yourself.

If any of this is of any value to any of my fellow physicians who are about to enter on a more adventurous way of life, the time spent is well worth while.

Louis LeFevre
Major, Service School Medical Department, Station Hospital
Fort Sam Houston, Texas

## SUPPLEMENTARY ROSTER

The following members were certified to the Executive Office of the Michigan State Medical Society after the Roster which appeared in the May issue of The Journal was sent to the press:

*Chippewa-Mackinac*

McBryde, Lyman M. ..... Sault Ste. Marie

*Delta-Schoolcraft*

Defnet, Harry J. ..... Escanaba

*Hillsdale*

MacFarland, O. G. ..... North Adams

*Jackson*

Adams, D. C. ..... Jackson
Munro, C. D. ..... Jackson

*Houghton-Baraga-Keweenaw*

Buckland, R. S. ..... Baraga
Burke, John ..... Hubbell
Kolb, F. E. ..... Lake Linden
McClure, R. J. ..... Calumet
Smith, C. R. ..... Houghton
Stewart, J. C. B. ..... Painesdale
Tinetti, E. F. ..... Laurium
Wickliffe, T. P. ..... Calumet
Willson, P. H. ..... Chassell
Winkler, H. J. ..... L'Anse

*Macomb*

Crawford, A. M. ..... Romeo
Maguire, A. J. ..... North Adams

*Monroe*

McDonald, T. A. ..... Monroe
Williamson, G. W. ..... Dundee

*Oakland*

Arnkoff, Harry ..... Pontiac
Hackett, D. J. ..... Pontiac
McEvoy, F. J. ..... Royal Oak
Ports, Preston W. ..... Farmington
Russell, V. P. ..... Royal Oak
Shadley, Maxwell ..... Pontiac
Sheffield, L. C. ..... Pontiac
Stanley, W. F. ..... Ferndale

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## DONALD JURY AWARDED $50 ALUMNI PRIZE

Donald Jury, 1910 Delaware, was awarded the $50 alumni prize for the senior with the highest scholarship during his period of registration in the Wayne University College of Medicine Wednesday evening at the annual alumni dinner.

The dinner concluded the all-day professional sessions of the alumni clinic held in the Horace H. Rackham Educational Memorial Building. The scholarship award was presented by Dr. Louis J. Morand, assistant professor of clinical surgery.

"Making the World Safe for Democracy; Can We Do It This Time?" was the topic of the dinner speaker, Prof. Preston Slosson of the University of Michigan.

The dinner was also the occasion of the installation of the College Alumni Association's president, Dr. Volney N. Butler. Dr. Henry A. Luce, leading Detroit psychiatrist, was toastmaster for the ceremonies.—*Wayne University Newsletter,* May 13, 1942.

## MASS PRODUCTION OF TETANUS TOXOID

Plans for the mass production of tetanus toxoid are under way at the Michigan Department of Health laboratories. It is estimated that 100,000 doses will be manufactured as an emergency measure to protect workers in the state's war industries against the disease.

Initial pilot runs of the toxoid have been made to determine its effectiveness and these have been very satisfactory. Large scale production will not be possible, however, until special equipment and adequate quarters can be obtained. Purchases are now being made for the equipment and a building is being constructed.

The manufacture of tetanus toxoid is a slow process. Several stages are involved, some of them taking weeks before they are completed. Every effort is being made to make large quantities of the toxoid available at the earliest possible date.

First use of the toxoid will be made among workers in those factories which would probably be targets for enemy bombers.

## PREMARITAL EXAMS FOR SERVICE MEN

Men in service who are planning marriage can have their premarital medical examinations in camp. Findings of medical officers in the armed services are accepted by the Michigan Department of Health. All Army and Navy laboratories are approved by the Department for doing the required tests.

Service men returning to Michigan to marry from stations elsewhere, must bring with them reports of their medical officers recorded on regular Michigan medical certificates.

## FARMING MOST HAZARDOUS OCCUPATION

Farming is still the most hazardous occupation in Michigan despite the increased tempo of war industry. Among occupational deaths last year, agriculture led with 84. Manufacturing was second with 83.

In all, 364 occupational deaths are listed in the accidental death summary for 1941. Transportation and public utilities are tied with 42 deaths, extractive industries other than mining and quarrying 35; trade 35; mining and quarrying 25; construction 15 and clerical and professional, five. Other accupational accidents accounted for 40 deaths.

Most occupational deaths, 149, occurred in the 45-64 age group. Accidents of all kinds caused 4,447 deaths in Michigan last year.

## TOURIST, RESORT SANITATION TO CONTINUE

Whatever may be war's effect on Michigan's tourist and resort business, there will be no relaxing of regulations which safeguard the health of the state's vacation land visitors. As in normal seasons, health department engineers will direct the inspection of sanitary arrangements in resorts and camps and the testing of drinking water supplies along the state's vacation highways.

Water supplies and sewage disposal, arrangements for handling food and milk, garbage and refuse disposal and conditions at bathing beaches in resort areas are the concern of the state and local health department sanitarians.

## MARRIAGES REACH ALL-TIME HIGH

More marriages were reported in Michigan in 1941 than ever before. Department figures show that 50,989 ceremonies were performed —an increase of 4,600 over the 1940 total of 46,342 and 184 more than the previous record of 50,805 in 1920.

The industrial boom and the increases in the ranks of the Army and Navy were mentioned as influences in establishing the marriage record last year. Department of Health records show that 4,185 marriages were performed in December, the highest number for that month in the history of the state.

Michigan Department of Health marriage records go back to the year 1868 when 8,700 were recorded. The total did not exceed 20,000 until 1898, the year of the Spanish American War, when 20,138 marriages were performed in Michigan. In 1917 Michigan's marriage total was 42,791, in 1918 it dropped to 33,260, but in 1919 marriages increased to 45,500 and in 1920 they exceeded 50,000 for the first time to establish the record which was not broken until last year.

The sharp rise in Michigan marriages in 1941 was a part of a nationwide increase. A million and a half couples were married in the United States last year, a 15 per cent increase over the 1940 total.

**Bay County**

The Woman's Auxiliary to the Bay County Medical Society held its annual meeting and election of officers at the Bay City Country Club on Wednesday, March 25.

Mrs. G. M. Brown was elected president; Mrs. E. S. Huckins, president-elect; Mrs. Kent A. Alcorn, vice president; Mrs. Paul L. DeWaele, recording secretary; Mrs. John H. McEwan, corresponding secretary; and Mrs. J. Norris Asline, treasurer.

The committee appointments announced by Mrs. Brown include Mrs. Alcorn and Mrs. Brown, representatives to the Inter-club Council; Mrs. Huckins and Mrs. Brown, representatives to the Council of Social Agencies; Mrs. Alcorn, program and public relations chairman; Mrs. A. L. Ziliak, membership and organization chairman; Mrs. Paul R. Urmston, legislation chairman; Mrs. Harold Shafer, historian; Mrs. Robert F. Hall, exhibits chairman; Mrs. F. T. Andrews, social service chairman; Mrs. John H. McEwan, chairman of the press; Mrs. Frank Ruggles, chairman of the telephone committee, aided by Mrs. V. H. Dumond, Mrs. Harris L. Woodburne, Mrs. James W. Wilcox, Jr., and Mrs. John Swantek; Mrs. Walter S. Stinson, social chairman, and Mrs. W. R. Ballard, chairman of *The Bulletin* and the crippled children's seal sale.

Mrs. R. E. Scrafford was chairman of the nominating committee, assisted by Mrs. A. D. Allen and Mrs. John H. McEwan.

Mrs. W. R. Ballard presided at the meeting in which she reported on this year's seal campaign for crippled children. Annual reports were given by the secretary, Mrs. Alcorn, and the treasurer, Mrs. H. M. Gale.

The program followed with Mrs. Stinson introducing William Gamble, M.D., who talked on the medical phases of the civilian defense program. He outlined the various divisions and fields of defense work and urged the members to promote registration and attendance at training courses of various kinds.

Mrs. Paul L. DeWaele,
*Recording Secretary*

The Auxiliary held its regular monthly meeting Wednesday, April 8, at the home of Mrs. Robert Hall.

A brief business meeting was conducted by Mrs. George M. Brown, president. There were twenty-one members present.

Mrs. Kent Alcorn, program chairman, presented the program and Mr. Myron Poole, president of the Bay City Camera Club, gave an informal lecture and demonstration on photography.

(Mrs. John H.) Marge McEwan,
*Corresponding Secretary*

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**Ionia-Montcalm Counties**

The April meeting of the Auxiliary to the Ionia-Montcalm Medical Society was held at the home of Mrs. Wm. Bird of Greenville. A cooperative dinner was followed by a business meeting devoted to a discussion of proposed projects for the coming year.

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**Kalamazoo County**

The Woman's Auxiliary to the Kalamazoo Academy of Medicine held their January meeting the evening of the 20th. Mrs. R. C. Hildreth was the hostess, assisted by Mrs. H. C. Lavender. A coöperative dinner was enjoyed by the 30 members present.

A business meeting followed, conducted by the president, Mrs. Sherman Gregg. A report was made that two more wheelchairs have been reconditioned, making a total of three which the Auxiliary has given the Loan Closet, to be used in the county when needed. Mrs. Kenneth Crawford gave a short talk on state and national auxiliary activities.

The remainder of the evening was spent playing bridge. Mrs. R. J. Hubbell and Mrs. Homer Stryker received prizes for high scores.

Miss Margaret Linsell, county home demonstration agent, was the guest speaker at the February meeting of the Auxiliary to the Kalamazoo Academy of Medicine on Tuesday evening, February 17. Her topic was "Nutrition."

The thirty-two members present enjoyed a cooperative dinner served from a table centered with yellow snapdragons and tapers in green holders. Mrs. Gerald H. Rigterink was the hostess.

Mrs. Gerald (Francis) Rigterink,
*Press and Publicity Chairman*

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**Kent County**

The Kent County Medical Auxiliary was glad to have members of neighboring auxiliaries as guests at the regular February tea meeting. The program speaker was Mrs. Mary Riste, dietitian at Butterworth Hospital. Mrs. Riste's subject was "Nutrition in Relation to Defense," and in it she stressed the need of a good nutritional education to combat the alarming amount of precritical cases of malnutrition that exist in our country.

Mrs. Wm. L. Rodgers, chairman of Red Cross

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Nutrition Committee, announced the classes open in Grand Rapids. Under her leadership the auxiliary voted to coöperate with the Grand Rapids Home Economic Association and the staff of the Public Museum in the production of a nutritional display to be used for educational purposes.

Subject for the high school essay contest sponsored by the auxiliary is "Building Bodies for Defense."

The regular March meeting was a luncheon held at the Women's City Club. Following the business meeting Mrs. Leland M. McKinlay entertained the group with an illustrated travel talk on Nova Scotia, Cape Breton Island, and the Maine coast.

Mrs. Wm. L. Rodgers has been doing a fine piece of work as chairman of a nutrition project which will be open to the public early in April at the Grand Rapids Museum. In addition to nutrition displays, a lecture program will be given on four successive Sunday afternoons in the museum auditorium.

The Medical and Surgical Supply Committee is raising money with which to purchase a medical kit. To do this the committee has planned a card party to be given late in April. Money will also be raised by selling match folders with the Aesculapian insignia on the cover.

The annual spring tea was held in the home of Mrs. Leon DeVel on April 8. Mrs. Paul Ralph and Mrs. Dewey R. Heetderks were co-chairmen of the event and the state auxiliary president and secretary, Mrs. Wm. J. Butler and Mrs. Henry J. Pyle, were guests of honor. Program for the tea was an amusing playlet, "To —the Women," presented by Mrs. John R. Baker and Miss Millicent McElwee. Incidental music was provided by Mrs. David B. Davis.

Instead of a general card party to raise funds for the purchase of an emergency medical field kit, the auxiliary voted to assess each member $1.00.

To each of the babies born to the members of our society during the current year a $1.00 bank account was presented. There were fifteen youthful recipients.

—Katharine W. Brace,
*Press Chairman*

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As long ago as 1865 Villemin successfully passed the "virus" of tuberculosis from one animal to another. Twelve years later (and five years before Koch's discovery of the tubercle bacillus) von Tappeiner caused dogs to develop tuberculosis by allowing them to inhale sputum from a consumptive patient. While direct lip contact is today considered the most potent means of transferring tubercle bacilli from person to person, knowledge as to the relative dangers of indirect contact with tuberculous lungs and their secretions is still incomplete. Three recently published papers give evidence of this while, at the same time, they sharpen our perception of the manner in which bacilli get from host to victim.



*Say you saw it in the Journal of the Michigan State Medical Society*

# IN MEMORIAM

**Nelson Ferguson McClinton** of Saginaw, was born October 17, 1874, in Port Perry, Ontario. He was graduated from the University of Michigan Medical School in 1898 and began his practice in Alma. In 1910 he went to Chicago to enter practice and while there took postgraduate work in surgery, specializing in genito-urinary work, and in 1916 he located in Saginaw. Dr. McClinton served twice as chief-of-staff of Saginaw General Hospital in 1931 and 1936, and served on the staffs of both St. Mary's and St. Luke's hospitals. He also was past president of the Saginaw County Medical Society and a member of the American Urological Society. He died April 18, 1942.

**Nelson McLaughlin** of Detroit was born October 7, 1882, in Nevada, Ohio, and was graduated from the Eclectic Medical College of Cincinnati in 1907. For many years Doctor McLaughlin was on the staff of the Highland Park General Hospital; he also served with the Medical Corps in the first World War—and for twenty years was a member of the State Board of Registration in Medicine, serving as president from 1930 to 1931 and secretary from 1931 to 1933. He died on April 8, 1942, in Highland Park General Hospital after an illness of two months.

**Herbert M. Maynard** of Ionia, was born in Kent County, January 16, 1878. He was graduated from the Grand Rapids Medical College in 1910, and began his medical practice at Tremaynes Corners where he remained until coming to Ionia twenty-one years ago. He was Secretary of the Ionia County Medical Society in 1926 and 1927. He died April 27, 1942.

**Keith M. Morris,** of Saginaw, was born in 1883 in Gagetown. He was graduated from the Saginaw Valley Medical College in 1903, and opened a general practice in Sebewaing in 1908. Later he took a postgraduate course in eye, ear, nose and throat at the Postgraduate and Medical College and Hospital, Chicago. He had practiced in Saginaw since 1933. Doctor Morris died April 11, 1942.

**Irwin H. Neff** of Detroit was born in Baltimore, Maryland, July 14, 1868, and was graduated from the University of Maryland Medical School in 1889. He also attended Johns Hopkins University School of Medicine in Baltimore. Doctor Neff, a nationally known psychiatrist, had practiced in Detroit and Birmingham for twenty-three years. He first came into prominence as a neurologist and psychiatrist when he founded the Norfolk State Hospital at Norfolk, Mass., in 1910. Later he was on the staff at Kalamazoo State Hospital, Pontiac State Hospital, Grace Hospital and Children's Hospital of Detroit. Doctor Neff was elected to Emeritus Membership in the Michigan State Medical Society in 1941. He died May 11, 1942, after a brief illness.

**Henry G. Steinmetz** of Lansing was born May 10, 1896, in Munich, Germany. He was graduated from the Indiana University School of Medicine in 1927. Doctor Steinmetz acted as Assistant Physician of the Logansport State Hospital, Logansport, Indiana, from 1929 to 1934 and as Assistant Superintendent from 1934 to 1937. In 1937 he became Medical Director of the District Health Department at Bloomington, Indiana, and in 1940 went to the Arlington County Health Department. In 1941 he came to Michigan as Acting Health Officer of Genesee County and served in that capacity until February, 1942, when he became the Assistant Director of the Venereal Disease Division, Michigan Department of Health. Doctor Steinmetz served in the first World War and held the commission of Captain in the Reserve Corps at the time of his death, April 22, 1942.

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**ANNALS OF SURGERY IN SPANISH**

With the simultaneous publication of the June issue of the *Annals of Surgery* in Philadelphia by the J. B. Lippincott Company, and in Buenos Aires by the Guillermo Kraft Company a new step was taken toward the consolidation of medical interests here and in South America. The *Annals of Surgery* is the oldest surgical journal in the English language. Its appearance now in Spanish will mark a high spot in the Lippincott Company's celebration of its sesquicentennial this year. As the result of negotiations and with the assistance of the Coördinator of Inter-American Affairs, and Mr. Lewis Hanke, Director of the Hispanic Foundation, Guillermo Kraft Company, one of the oldest and most respected publishing firms in Buenos Aires, will translate the *Annals of Surgery* each month for South American physicians and surgeons.

The *Annals of Surgery* is edited by a distinguished editorial board representing medical schools and national surgical societies of the United States and Canada. Dr. Walter E. Lee, Chairman of the Editorial Board, is Dean of the Graduate School of Medicine, University of Pennsylvania. Beginning with the June issue, this Board will have the support and inspiration of leading surgical figures from our sister republics in South America where much surgical work of a high caliber is being performed.

**100 Per Cent Club for 1942**

| *County Society* | *Secretary* |
|---|---|
| Alpena-Alcona-Presque Isle | Harold Kessler, M.D. |
| Barry | R. G. Finnie, M.D. |
| Branch | James Bailey, M.D. |
| Cass | John K. Hickman, M.D. |
| Chippewa-Mackinac | Stanley H. Vegors, M.D. |
| Dickinson-Iron | E. B. Andersen, M.D. |
| Eaton | B. P. Brown, M.D. |
| Gogebic | F. L. S. Reynolds, M.D. |
| Huron | Roy R. Gettel, M.D. |
| Ingham | R. J. Himmelberger, M.D. |
| Ionia-Montcalm | John J. McCann, M.D. |
| Kalamazoo | Hazel R. Prentice, M.D. |
| Livingston | Duncan A. Cameron, M.D. |
| Manistee | C. L. Grant, M.D. |
| Mason | Chas. A. Paukstis, M.D. |
| Medical Society of North Central Counties | C. G. Clippert, M.D. |
| Menominee | Wm. S. Jones, M.D. |
| Muskegon | Thomas J. Kane, M.D. |
| Oceana | V. W. Jensen, M.D. |
| Ontonagon | W. F. Strong, M.D. |
| St. Clair | J. H. Burley, M.D. |
| Sanilac | E. W. Blanchard, M.D. |
| Shiawassee | I. W. Greene, M.D. |
| Tuscola | D. B. Ruskin, M.D. |
| Wexford-Missaukee | B. A. Holm, M.D. |

Twenty-five county medical societies are listed above as having certified 1942 Michigan State Medical Society dues for every member of the medical profession in the county who is eligible. All physicians who were members in 1941 who have not been certified as yet in 1942 have been removed from the active files and mailing lists of the State Medical Society

*David Charles Whitney,* Detroit, who with other members of his family recently presented the "Whitney House" to the Wayne County Medical Society, died after a protracted illness on April 24, 1942, in Detroit.

* * *

*Clarence D. Selby, M.D.,* Detroit, was awarded the Wm. K. Knudson award for accomplishment in the field of Industrial Medicine at the recent meeting of the American Association of Industrial Physicians and Surgeons in Cincinnati. Dr. Selby is a member of the MSMS Industrial Health Committee.

*"Parergon,"* a wonderful record of the art work of some of the physicians of the United States, has just been published by Mead-Johnson & Company. It represents the encouragement of art by physicians and the appreciation of art by patients.

* * *

*Doctors Committee* for Russian War Relief of which Alfred H. Whittaker, M.D., is Chairman, is collecting surgical and medical supplies for shipment to the Russians. Maurice P. Myers, M.D., Detroit, upon entering active military service donated all his surgical supplies to the committee.

* * *

*The value of psychiatry* in the present war emergency was stressed in the 118th Annual Report of the Neuro-psychiatric Institute of Hartford given by C. Charles Burlingame, M.D. Doctor Burlingame pointed out that psychiatrists can give valuable assistance as combat officers advising and assisting in the direction of offensives against the enemy in modern psychological warfare, but also have an important defensive role against the psychological warfare being directed by the enemy against our armed forces and civilian population.

* * *

*Recent talks* by officers, committeemen and members of the Michigan State Medical Society:

*Douglas Donald, M.D.,* Detroit, was elected Governor for Michigan, with a three-year term.

*W. A. Manthei, M.D.,* Lake Linden, addressed the Houghton County Medical Society on "Cancer Control," May 8, 1942.

*P. R. Urmston, M.D.,* Michigan Chairman of the Procurement and Assignment Committee, addressed the Wayne County Medical Society at its 94th Annual Meeting in Detroit on May 4.

*Henry R. Carstens, M.D.,* Detroit, president of the Michigan State Medical Society, was elected vice president of the American College of Physicians at its Saint Paul meeting in April.

*Fred R. Reed, M.D.,* Three Rivers, addressed the Allegan County Medical Society in Allegan on May 5. Doctor Reed spoke on "Immunization Program Against Diphtheria and Smallpox" and "Procurement and Assignment."

*Major C. I. Owen, M.C.,* Assistant Medical Director of Selective Service for Michigan, addressed the Manistee County Medical Society in Manistee on Tuesday, May 5. His subject was "The Doctor and The Draft."

**Army and Navy Commissions**

Applications for commissions in the armed forces may be made by communicating with the following:

*Army*—Medical Department Officers
Recruiting Board
320 Federal Building
Detroit, Michigan

*Navy*—Commandant
Ninth Naval District
Great Lakes, Illinois

Be sure to enroll with the Procurement and Assignment Service, 601 Pennsylvania Avenue, N. W., Washington, D. C. (execute your questionnaire).

*Harrison S. Collisi, M.D.,* Grand Rapids, chairman of the Public Relations Committee of the Michigan State Medical Society, has accepted a commission as Major in the Medical Corps of the Army. He reported for active duty at Billings General Hospital, Fort Benj. Harrison, Indianapolis, Indiana, on May 18, 1942.

* * *

*The American Congress of Physical Therapy* will hold its twenty-first annual scientific and clinical session September 9, 10, 11 and 12, 1942, inclusive, at the Hotel William Penn, Pittsburgh, Pa. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

* * *

*"Bill Gets the Works"* is the title of another pamphlet in the USPHS Workers' Health Series, directed to individual workers. It outlines an entrance examination in an industrial plant. Copies may be obtained by writing E. R. Coffey, Assistant Surgeon General, Division of Sanitary Reports & Statistics, USPHS, Washington, D. C.

* * *

*"Recent Knowledge Regarding Infantile Paralysis"* was the subject of an address by Max Peet, M.D., Ann Arbor, at the Regional Meeting of the National Foundation for Infantile Paralysis, Jackson, April 30. Other Michigan physicians on the program included H. Allen Moyer, M.D., State Commissioner of Health and Ralph Ten Have, M.D., of Grand Haven. An address was given by Basil O'Connor, President of the National Foundation.

* * *

*Regulations* for the administration of the Blood and Plasma Bank Program of the Medical Division of the U. S. Office of Civilian Defense have now been prescribed and funds are available for grants to assist approved hospitals in establishing such banks. Up to July 1, only


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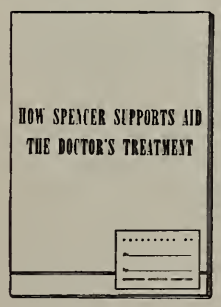


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**Marion, Ohio**

hospitals within 300 miles of the Atlantic or Pacific Coasts are eligible for grants. After July 1, modifications in these restrictions may be made. Applications and inquiries should be addressed to the Chief Medical Officer, United States Office of Civilian Defense, Washington, D. C.

* * *

*Coördinators Appointed by Crippled Children Commission.*—Three of the eight coördinators have been appointed by the Michigan Crippled Children Commission:

David Kliger, M.D., Detroit, for Wayne County.
Wm. G. Hutchinson, M.D., Pontiac, for Genesee, Lapeer, Oakland, Macomb, St. Clair and Sanilac Counties.
A. H. Miller, M.D., Gladstone, for the Upper Peninsula.

Five additional coördinators will be appointed during ensuing months to cover the entire state of Michigan.

* * *

*Paul H. King,* Detroit, Chairman of the Michigan Crippled Children Commission, passed away on May 17 as the result of a heart attack suffered a week earlier. Mr. King was referee in bankruptcy in the United States district court at the time of his death, a post he had held for twenty-three years. In addition to serving as chairman of the Michigan Crippled Children Commission, he was president of the International Society for Crippled Children in 1936 and presided over sessions in Nice and Hungary. The loss of Mr. King will be keenly felt in Michigan.

* * *

*Quinine has been restricted* by the government in an order issued by the Division of Industry Operations of the War Production Board on April 4, 1942. The order does not apply to stocks of 50 ounces or less held in any one place, which means that stocks of 50 ounces or less may be disposed of by druggists without restriction. The retailer will be required, however, on newly acquired supplies to certify that he will not sell such quinine except for anti-malarial purposes under any circumstances. Therefore, the use of quinine for any other purpose than the treatment of malaria is banned.

* * *

*At the annual meeting* of the Wayne County Medical Society, held May 4, the following officers were elected for the year 1942-43:

President—G. L. McClellan, M.D., Detroit
President-elect—Wyman D. Barrett, M.D., Detroit
Secretary—Richard C. Connelly, M.D., Detroit
Trustee—Allan McDonald, M.D., Detroit

The Medical Section elected E. R. Witwer, M.D., as chairman, and J. J. Lightbody, M.D., as secretary; the Surgical Section elected L. W. Hull, M.D., as chairman and C. S. Ratigan, M.D., as secretary; and the General Practice Section elected W. B. Harm, M.D., as chairman and V. E. Nelson, M.D., as secretary.



*Say you saw it in the Journal of the Michigan State Medical Society*

*The Upper Peninsula Medical Society* will hold its 1942 meeting at Marquette on July 23 and 24. M. Cooperstock, M.D., Marquette, Chairman of the Program Committee, announces the following speakers have been secured for their program: James D. Bruce, M.D., Frederick A. Coller, M.D., Albert C. Furstenberg, M.D., Norman F. Miller, M.D., Louis H. Newburgh, M.D., and Herman H. Riecker, M.D., all of Ann Arbor; Robert L. Novy, M.D., and Louis J. Hirschman, M.D., of Detroit.

* * *

*The Jackson County Medical Society Bulletin,* April 1942 issue, lists the age distribution of Jackson physicians as follows:

| | |
|---|---|
| Between 20 and 29 | 3 |
| Between 30 and 39 | 29 |
| Between 40 and 49 | 31 |
| Between 50 and 59 | 20 |
| Between 60 and 69 | 14 |
| Between 70 and 79 | 8 |
| Over 80 | 3 |

The majority of Jackson members are graduates of the University of Michigan (55), with Wayne University, Detroit, having nineteen graduates.

* * *

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**Schering Corporation, Bloomfield, New Jersey**
**Scientific Sugars Company, Columbus, Indiana**
**Sharp & Dohme, M.D., Philadelphia**
**Smith, Kline & French Laboratories, Philadelphia**
**Frederick Stearns & Company, Detroit**
**E. R. Squibb & Sons, New York**

The above ten firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or service.

**Cancel Narcotic Licenses**

All physicians who are or will shortly be in military service are urged to formally cancel their Narcotic License, both State and Federal. Otherwise, their names will continue to be listed as active practitioners and failure to renew may bring unnecessary penalty. To be on the safe side, officially cancel your license for narcotics, before July 1.

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Johnnie Walker *has* to be two people. For the friendly gentleman identifies both 12-year-old Black Label and 8-year-old Red Label Scotch whisky. Each has the smooth, friendly flavour that brings a special feeling of satisfaction to your taste. You'll like mellow Johnnie Walker, from the very first sip.

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FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting June 29 and September 21. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5. One Month Personal Course starting August 3. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21. Three Weeks Course starting August 10. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28. Five Weeks Course in Refraction Methods starting October 19. Informal Course every week.

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*Alger-Schoolcraft and Saginaw* counties have been named as winners in the rural health classification of the National Health Conservation Contest for 1941, conducted jointly by the Chamber of Commerce of the United States and the American Public Health Association. Detroit is one of 14 winning cities in 10 states in the city health contest. The Alger-Schoolcraft award is the fourth for the district in the eight years the rural contest has been conducted. A total of 28 awards were made to cities and counties in 17 states. Michigan, Kentucky, Tennessee and Wisconsin each produced three winners.

* * *

*The School of Public Health,* University of Michigan, announces summer courses beginning June 29 and ending August 8 in the following courses:

(a) Introduction to Public Health Administration and Law
(b) Public Health Administrative Problems
(c) Advanced Public Health Administration
(d) Public Health Economics
(e) Introduction to Maternal and Infant Health
(f) Fundamentals of Public Health
(g) Introduction to Industrial Health

Information on these and other courses in the summer school may be obtained by writing the University of Michigan School of Public Health, Ann Arbor, Michigan.

* * *

*Annual Alumni Clinic Day* of Wayne University College of Medicine was held on Wednesday, May 6, 1942, at the Horace H. Rackham Educational Memorial Building in Detroit. Among the speakers on the program were Elmer L. Sevringhaus, M.D., Madison, Wisconsin, on "Proven Preparations in Endocrine Therapy and Their Application"; Alfred W. Adsen, M.D., on "The Present Status of the Surgical Treatment of Hypertension"; John Murphy, M.D., Toledo, Ohio, on "X-ray Treatment of Lesions of the Face"; George Curtis, M.D., Columbus, Ohio, on "The Recognition and Management of Acute Injuries to the Chest"; Plinn F. Morse, M.D., Detroit, on "The Diagnosis of Splenic Enlargements." The speaker at the banquet was Prof. Preston Slosson on the subject "Making the World Safe for Democracy, Can We Do It This Time?"

* * *

*Winners of the Schering Award* for 1941 just announced by the Association of Internes and Medical Students are Fred Feldman, Class of 1942, Albany Medical College, first prize of one year's tuition scholarship; and Cesare Lombroso, Class of 1942, Johns Hopkins Medical School, one-half year's tuition scholarship. Elizabeth Brown, Albany Medical College, and Clarence Denton, Long Island College of Medicine, have been awarded third prize of $100 each for a



*Say you saw it in the Journal of the Michigan State Medical Society*

third place tie. The subject for the 1941 competition was the History of Endocrine Research. The Schering Award was established by the Schering Corporation and is conducted by the Association of Interns and Medical Students. Papers for the 1941 contest were submitted by students representing twenty-four medical schools in the United States and Canada.

* * *

*Draft Board Examination for Syphilis.*—The State Headquarters for Selective Service, on January 7, 1942, sent the following Memorandum (M-139) to all Local Boards and Medical Examiners:

"The Local Board will direct a registrant whose first serologic test was other than negative (i.e., positive, doubtful, or unsatisfactory sample) to report to a local examining physician for the purpose of having a second sample of blood drawn for a serologic test.

"Registrants who are found to have two positive tests should be reported to the local health department by the Chief Clerk of the Local Board. Michigan Department of Health Form No. c-76 should be used for this purpose. This report should give the registrant's name, latest address, age, and color and should be in the hands of the local health department within five days after the report of the second positive blood test has been received.

"The Local Board should advise and urge the registrants having two positive blood tests to report to the local health department immediately so that he may be placed under treatment with his private physician."

* * *

*Confusion seems to exist* in some communities concerning the scope of the Red Cross home nursing course. It has been reported that in some localities persons who have completed the Red Cross course in home nursing are being called upon to volunteer in community health work. The Washington Office of Civilian Defense suggests that the attention of all the regional staff be directed to the confusion now existing so that they may clarify the situation in places which they visit.

The purpose of the course in Red Cross Home Nursing is to strengthen the resourcefulness of the individual in dealing with minor illness or emergencies in the home, to develop in the individual a health consciousness that will permit better care of the home and family under normal conditions as well as in illness or emergency. This course has never been considered by the Red Cross adequate for volunteers in community health services.

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### Detroit Physiological Society Holds Elections

Annual elections of officers of the Detroit Physiological Society will take place at their meeting at 8:00 p.m. Thursday, May 21, in the second floor lecture room of the new building of the Wayne University Medical School.

"Some Observations on the Keto-Acid Derived from Methionine," a report by Dr. Gilford G. Rudolph, teaching fellow in physiological chemistry, and Dr. William M. Cahill, instructor in physiological chemistry, both of the Wayne University College of Medicine, will be included on the program.

The other two reports which will be given are "Studies on the Respiration of Premature Infants" by Dr. James L. Wilson, chief of medical service at the Children's Hospital and associate professor of pediatrics at the Wayne University College of Medicine, and Dr. Philip J. Howard, of the pediatric division of Henry Ford Hospital; and "The Anti-Insulin Effect of the Anterior Pituitary" by Dr. Hans Jensen of the Upjohn Company in Kalamazoo.

* * *

### Michigan Physicians on A.M.A. Program

Michigan physicians on the program of the 1942 AMA Convention in Atlantic City included: Frederick A. Coller, M.D., Ann Arbor; C. G. Johnston, M.D., Detroit; Max M. Peet, M.D., Ann Arbor; H. N. Harkins, M.D., Detroit; Parker Heath, M.D., Detroit; Lowell S. Selling, M.D., Detroit; Claire L. Straith, M.D., Detroit; Samuel S. Altshuler, M.D., Detroit; R. H. Freyberg, M.D., Ann Arbor; Norman F. Miller, M.D., Ann Arbor; Frank W. Hartman, M.D., Detroit; John G. Mateer, M.D., Detroit; Reuben L. Kahn, M.D., Ann Arbor; Clarence D. Selby, M.D., Detroit; Reed M. Nesbit, M.D., Ann Arbor; Robt. H. Cummings, M.D., Ann Arbor; Louis J. Hirschman, M.D., Detroit; Arch Walls, M.D., Detroit; George J. Curry, M.D., Flint; Carl E. Badgley, M.D., Ann Arbor; George L. Waldbott, M.D., Detroit; Henry R. Carstens, M.D., Detroit; Victor Schelling, M.D., Detroit; Brock Brush, M.D.; Detroit; Kenneth W. Warren, M.D., Detroit; S. E. Gould, M.D., Eloise; Gordon B. Myers, M.D., Detroit; Fred Margolis, M.D., Detroit; Muir Clapper, M.D., Detroit; H. A. Towsley, M.D., Ann Arbor; Thomas N. Horan, M.D., Eloise.

* * *

### 1942 Technical Exhibitors

Exhibitors at the 1942 Convention of the Michigan State Medical Society, to be held at the Civic Auditorium, Grand Rapids, September 23, 24, 25, 1942, include:

Abbott Laboratories.....North Chicago
A. S. Aloe Company.....St. Louis, Mo.



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Audiphone Company of Detroit.....Detroit
Baker Laboratories.....Cleveland
Bard-Parker Company, Inc.....Danbury, Conn.
Barry Allergy Laboratory.....Detroit
Becton Dickinson & Company.....Rutherford, N. J.
Ernst Bischoff Company, Inc.....Ivoryton, Conn.
The Borden Sales Company, Inc.....New York, N. Y.
Burroughs Wellcome & Company, Inc.....
New York, N. Y.
Cameron Surgical Specialty Company.....Chicago
S. H. Camp & Company.....Jackson, Mich.
Ciba Company, Inc.....Summit, N. J.
Cottrell-Clarke, Inc.....Detroit
Cream of Wheat Corporation.....Minneapolis, Minn.
Davis & Geck, Inc.....Brooklyn, N. Y.
R. B. Davis Sales Corporation.....Hoboken, N. J.
DePuy Mfg. Company.....Warsaw, Indiana
Detroit Creamery.....Detroit
Detroit X-Ray Sales Company.....Detroit
Doho Chemical Corporation.....New York, N. Y.
Duke Laboratories, Inc.....Stamford, Conn.
E & J Resuscitator Company.....Detroit
J. H. Emerson Company.....Oak Park, Ill.
H. G. Fischer & Company.....Chicago
C. B. Fleet Company, Inc.....Lynchburg, Va.
General Electric X-Ray Corporation.....Chicago
Gerber Products Company.....Fremont, Mich.
Hack Shoe Company.....Detroit
Hanovia Chemical & Mfg. Company...Newark, N. J.
J. F. Hartz Company.....Detroit
H. J. Heinz Company.....Pittsburg, Pa.
Hoffmann-La Roche, Inc.....Nutley, N. J.
Holland-Rantos, Inc.....New York, N. Y.
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J. B. Lippincott Company.....Philadelphia, Pa.
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McKesson Appliance Company.....Toledo, Ohio
McNeil Laboratories.....Philadelphia, Pa.
Mead Johnson & Company.....Evansville, Indiana
Medical Arts Surg. Supply Company....Grand Rapids
Medical Case History Bureau.....New York, N. Y.
Medical Protective Company.....Fort Wayne, Ind.
Mellin's Food Company.....Boston, Mass.
The Mennen Company.....Newark, N. J.
Merck & Company.....Rahway, N. J.
The Wm. S. Merrell Company.....Cincinnati, Ohio
Michigan Medical Service.....Detroit
C. V. Mosby Company.....St. Louis, Mo.
National Livestock & Meat Board.....Chicago
Parke, Davis & Company.....Detroit
Pelton & Crane Company.....Detroit
Pet Milk Sales Corporation.....St. Louis, Mo.
Petrogalar Laboratories, Inc.....Chicago, Ill.
Philip Morris Company, Ltd.....New York, N. Y.
Picker X-Ray Corporation.....New York, N. Y.
Procter and Gamble.....Ivorydale, Ohio
Professional Management.....Battle Creek, Michigan
Randolph Surgical Supply Company.....Detroit
Riedel-DeHaen, Inc.....New York, N. Y.
Frank N. Ruslander.....Detroit
St. Louis Sanatorium.....St. Louis, Mich.
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*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

THE PRINCIPLES OF NEUROLOGICAL SURGERY. By Loyal Davis, M.S., M.D., Ph.D., D.Sc., (Hon.) Professor of Surgery and Chairman of the Division of Surgery, Northwestern University Medical School, Chicago, Illinois. Second Edition, thoroughly revised. With 154 engravings, containing 298 illustrations and 5 colored plates. Philadelphia: Lea and Febiger, 1942. Price: $7.00.

The second completely revised edition of this well-accepted text is presented. It is written, not for the neuro-surgeon, but mainly for the practitioner of medicine giving him easily assimilable facts which will aid him in getting a more accurate concept of neurological surgery to the end that his patients will receive accurate and sound advice. The typography is excellent; the illustrations are well chosen. It contains much information of practical value to the general practitioner.

MEDICAL STATE AND NATIONAL BOARD SUMMARY. By William H. Kupper, M.D. With a Foreword to the Candidate by Earl S. Hallinger, M.D., Secretary, New Jersey State Board of Medical Examiners. Paterson, N. J.: The Colt Press, 1942. Price: $4.50.

This is an outline of medical college subjects based on the questions asked by the various state and national boards of registration in medicine. Its advantage lies in the fact that it sifts out for the prospective applicant the non-essential and purely cultural information given in the medical course and makes available in one volume most of the fundamental principles of the complex science of medicine. It is recommended for any state board applicant.

A MANUAL OF PHARMACOLOGY and Its Application to Therapeutics and Toxicology. By Torald Sollmann, M.D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Sixth Edition, entirely reset. Philadelphia: W. B. Saunders Company, 1942. Price: $8.75.

Here is the sixth edition of this text and reference book which was originally published in 1917. There is added, in this edition, the outstanding advances in the fields of the sulfonamides and other recent additions to the therapeutic armamentarian. An extensive bibliography is carefully prepared and its organization makes it invaluable as a reference volume.

NEPHRITIS. By Leopold Lichtwitz, M.D., Chief of the Medical Division of the Montofiore Hospital; Clinical Professor of Medicine, Columbia University, New York. New York: Grune & Stratton, 1942. Price: $5.50.

In this monograph the author presents a rather complete discussion of renal pathology and its relation to clinical subjects. It includes a method of analyzing renal function and urinary excretory capacity in a simple practical method. The treatment of nephritis is presented in a practical form based upon the type of nephritis. The typography is good and it should be of value in the library of the general practitioner.

THE CONQUEST OF BACTERIA. From Salvarsan to Sulphapyridine. By F. Sherwood Taylor. Foreword by Henry E. Sigerist. New York: Philosophical Library and Alliance Book Corporation, 1942. Price: $2.00.

The author is the "Paul de Kruif" of England without his flare for the dramatic. Taylor has presented the story of chemotherapy in an easily readable manner and with due regard to the scientific facts. The last chapter includes suggestions to aid further the progress of chemotherapy—first, the use of public money for the organization of chemotherapeutic research and second, the refusal to grant patents for the manufacture of the drugs. The foreword is by Henry E. Sigerist, well-known to the practitioner of medicine for his unusual views on the practice of medicine.

SURGERY OF THE AMBULATORY PATIENT. By L. Kraeer Ferguson, A.B., M.D., F.A.C.S., Lieut. Commander, Medical Corps, United States Naval Reserve; Assistant Professor of Surgery, University of Pennsylvania; Assistant Surgeon, Hospital of the University of Pennsylvania; Surgeon, Philadelphia General Hospital and Doctors Hospital; Consulting Surgeon, Frankford Hospital; Chief of the Surgical Out-Patient Department, Hospital of the University of Pennsylvania; Chief of the Proctologic Clinic, Hospital of the University of Pennsylvania and Philadelphia General Hospital. With a Section on Fractures by Louis Kaplan, A.B., M.D., F.A.C.S., Associate in Surgery, University of Pennsylvania; Associate in Surgery, Mt. Sinai Hospital; In Charge of the Fracture Division of the Surgical Out-Patient Department, Hospital of the University of Pennsylvania. Philadelphia: J. B. Lippincott Company, 1942. Price: $10.00.

In the greatest of detail the office surgery of the ambulatory patient is presented in a profusely illustrated practical manner. The completeness

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of the treatment of this subject is unusual. The ill-effects of the recommended therapy are also noted with frankness. It is highly recommended to every general practitioner. The typography is excellent and the illustrations well chosen and numerous.

A TEXTBOOK OF NEURO-ANATOMY. By Albert Kuntz, Ph.D., M.D., Professor of Micro-Anatomy in St. Louis University School of Medicine. Third Edition, thoroughly revised. Illustrated with 307 engravings. Philadelphia: Lea and Febiger, 1942. Price: $6.00.

This is the third edition of a standard textbook on the anatomy and physiology of the nervous system. While essentially written as a textbook the organization of material is such that its use as a reference book is well established. A summary at the end of each chapter readily enables the practitioner, who seeks information on this subject, to refresh his mind. The typography is excellent and the illustrations are satisfactory.

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## YOUR UNCLE SAM TAKETH AWAY

In several points related to the collection and the disbursement of the money of the taxpayers of the Keystone State the writer holds deep conviction:

(1) The said taxpayers gain nothing and lose much by the transactions in which Pennsylvania money is taken by the federal government, handled by Washington, D. C., bureaus, vicariously distributed to many other, politically speaking, more circumspect states of the Union, and returned in small proportion with much publicity and many flourishes to Pennsylvania in the form of "grants" to be matched in amount by Pennsylvania taxpayers and to be spent for the benefit of Pennsylvanians, but to be spent only as the representatives of the political powers at Washington permit.

Sincerely as one may believe that the State of Pennsylvania should refuse the above types of mortgaged federal aid and should develop, pay for, and fully control its own public health programs, it seems only fair to point out at this time one reason which may have persuaded the United States Public Health Service to delete $100,000 from its current "gift" to Pennsylvania.

There has been considerable publicity given to the claim that as the result of the above (the only) reduction in this year's "gifts" from Washington, several important items have of necessity been eliminated from the Health Department's 1941 program, notably cancer control, pneumonia control, etc. Let's have such control divisions restored by all means, but let Pennsylvania pay for them direct and as rapidly as possible cut away from other federally controlled "gift" health activities for Pennsylvania.

The failure on the part of our 1941 state legislature to enact legislation creating Civil Service Control for at east the physicians, engineers, dentists, and nurses employed in the Health Department may have afforded the U. S. Public Health Service excuse for this, its initial reduction to Pennsylvania.

That other reductions in "gifts" for other service established or proposed are likely to follow soon is well brought out in the Officers' Department, this issue, under the headline "At Long Last."

A very recent release from the Department of Commerce at Washington declares that "to meet the minimum requirements for adequate medical service as set up in 1933 by the Committee on the Costs of Medical Care" the United States would have to build 2,000 more average-size 170-bed hospitals.

Pennsylvania is rated as having inadequate hospital facilities along with South Dakota, while New York State is rated high, in fact right up with the District of Columbia.

Beware, fellow taxpayers, of more "Greeks bearing gifts," soon from Washington to Pennsylvania to pay for the erection of needless facilities to be supported by Pennsylvania through the years and under federal partisan domination.—*The Pennsylvania Medical Journal,* October, 1941.

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# ✶ HALF A CENTURY AGO ✶

## THE COATED TONGUE*

GEORGE DUFFIELD, M.D.
Detroit, Michigan

A physician, on being asked if he could speak many languages, replied, "I can speak but one language, but I can understand many tongues." I come with this question today: Do we, as physicians, understand the many tongues we see? Do we comprehend their pathological significance?

The tongue has been called a mirror, reflecting the various conditions of the digestive organs, the composition of the blood, the state of the secretions, and the condition of the nervous power. It is dry when the salivary secretions are deficient, as in febrile disease, in the exanthemata, and in typhoid fever. In the latter disease, it has a brownish coat and is often fissured.

The dry, encrusted, brown and fissured tongue is often the seat of parasites that cause decomposition. It is a bad symptom, and is often the forerunner of death.

The color of the tongue is subject to many changes. It is a pink hue when the physiological actions of the stomach are carried on normally. It is usually very pale when anemia exists. It is red and shining in the exanthemata. It is bluish or livid when there is obstruction to the venous blood, from diseases of the heart or lungs. A red, smooth tongue is a sign of failing nutrition, and is often seen in cases of phthisis.

Normally, there is no coating on the tongue, but the slightest variation of physiological functions, especially of the stomach or liver, produces one, that varies in thickness from a slight furred condition to one of parchment consistency.

It is whitish in catarrhal affections of the stomach, it is yellowish when the liver is disturbed, and it is browning when the blood is vitiated from disease. Certain medicines and occupations cause the tongue to become coated, and inflammatory affections of the throat often affect the tongue. Some of the coated tongues seem to have a covering that is literally organized, and a part and parcel of itself. Too frequently the physician writes his prescription by looking at the tongue alone, believing that the coating is due to some catarrhal affection of the stomach, and we make the mistake in not thoroughly examining our patient, trying to discover the cause producing the malady. We see the effect only of the disorganized function on the tongue. How often we have heard our patient say, "If I could get my tongue clean I am sure I would be well." After we have tried an acid or alkali, and essence of pepsin or bitter tonic, without effect upon the tongue for the better, we begin to look for some other symptoms, which will throw more light upon the case. And about this time our patient has made up his mind to try another physician, and we do not have the opportunity of making the critical examination that we should have made when we were first consulted.

These coated tongues need their cause removed before they can be cured. We have all seen cases that have baffled our best efforts, and often we have been at a loss to know the cause of the persistent coating on the tongue.

We have examined them, perhaps, by palpation and percussion. We have continued our medication for months, and yet the tongue is as coated as it was when we were first consulted. What is the reason for it?

Let me detail three cases that have come under my care in the past few months, and perhaps a cause may be found.

*Case 1.*—Mrs. C., aged thirty-nine years; 5 feet 8 inches high, weight 140 pounds, mother of one child, aged five years, at whose birth she suffered from lacerations of cervix and perineum. Her only complaint when she consulted me was for a persistent coating of the tongue, that had existed for four years, from the time of the nursing of her baby, when she took three or four quarts of rich milk every day.

The tongue was covered to the tip with a greyish-green coating, thicker behind on the dorsum, than in front. There was no bad taste in the mouth, and on close examination only a slight sour odor was detected on the breath. Her appetite was fair.

*(Continued on Page 534)*

*Presented at the Twenty-Seventh Annual Meeting of the Michigan State Medical Society held at Flint, May, 1892.

To the immature digestive system that must consume food in quantities necessary for rapid growth, quality is of prime importance. Similac provides breast milk proportions of fat, protein, carbohydrate and minerals, in forms that are physically and metabolically suited to the infant's requirements. Similac dependably nourishes the bottle fed infant — *from birth until weaning.*

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*(Continued from Page 532)*

For two or three years she had been in the hands of the physicians, and each thought her case one of catarrh of the stomach. A gynecologist believed it to be dependent upon her lacerations, and was successful in repairing them, though the operation did not cause her tongue to be any cleaner, but it improved her general health.

Her complexion was pale and sallow, she was anemic, and her pulse was weak. There was some tenderness over the liver, which was enlarged. The spleen was enlarged and tender. The urine passed freely, was low in specific gravity, 1.010, but contained no albumen or sugar.

This case puzzled me very much, indeed. I tried everything that I knew of, that was ever used in stomach affections, and all to no purpose. Then I asked for consultation and named Dr. E. A. Chapoton as consultant. His examination was a very careful one, and finding the pulse weak, he employed auscultation; possibly a strange thing to do, when the disease seemed to be entirely in the stomach. But he was rewarded in finding a mitral regurgitant murmur, which seemed to be in its incipiency as it occurred just after the first sound of the heart, and was a short, soft, blowing sound. Then, only, were we able to unravel the peculiar case, and find a cause for the coated tongue, which, undoubtedly, was obstruction of the portal system, which induced chronic venous congestion of the liver, stomach, and intestines.

There had been no history of rheumatism or severe straining, and it is a mystery to me why this murmur should have occurred at all.

*Case 2.*—Mrs. F., aged sixty-six years, mother of six children, has had a chronic bronchitis for years, and for years has had a coated tongue. The coating was most marked in the morning and it was necessary to brush it hard, when she brushed her teeth, in order to remove it. The appetite was only fair. There were no special gastric symptoms.

Physical examination by percussion and palpation, showed the left lobe of liver hard and resisting, an enlarged stomach, due to dilatation, and a tender spleen. The tongue was heavily coated, especially far back upon the upper and middle portions. It was greyish green, and of almost leathery consistency; it was slimy and of offensive odor.

In making an examination of the lungs by auscultation, a mitral regurgitant murmur was discovered at the apex of the heart. Upon a more critical examination, it was found that the heart was hypertrophied, and that all of the abdominal viscera were the seat of mechanical congestion. The liver was hard and atrophied, the spleen was tender, the mucous membranes of mouth and tongue were cyanotic to a considerable degree.

This disease of the heart was evidently secondary to the disease of the lungs and the obstruction to the flow of blood through the heart was the cause of the catarrhal condition of the stomach, that produced the coating of the tongue, by producing the engorgement of the portal circulation.

*Case 3.*—Mrs. B., aged forty-four years, mother of three children. Has long been troubled with a coated tongue and offensive breath. Her tongue is never wholly clean; at times the tip and edges are clean, but the upper and back portions are furred and heavily covered with a greyish-yellow coat, which looks like a pseudomembrane. She has been a great sufferer from hemorrhoidal difficulties, uterine congestion, severe headaches and congestion of lungs, et cetera.

Some fifteen years ago, she had pneumonia and it was intimated that she would soon die of consumption, but she outlived the physicians who gave this unfavorable prognosis.

Twelve years ago she suffered from an attack of acute articular rheumatism, which was complicated with endocarditis. The disease seemed to expend itself on the mitral orifice, and at present there is a *mitral obstructive* and a *mitral regurgitant* murmur, with marked hypertrophy of the heart.

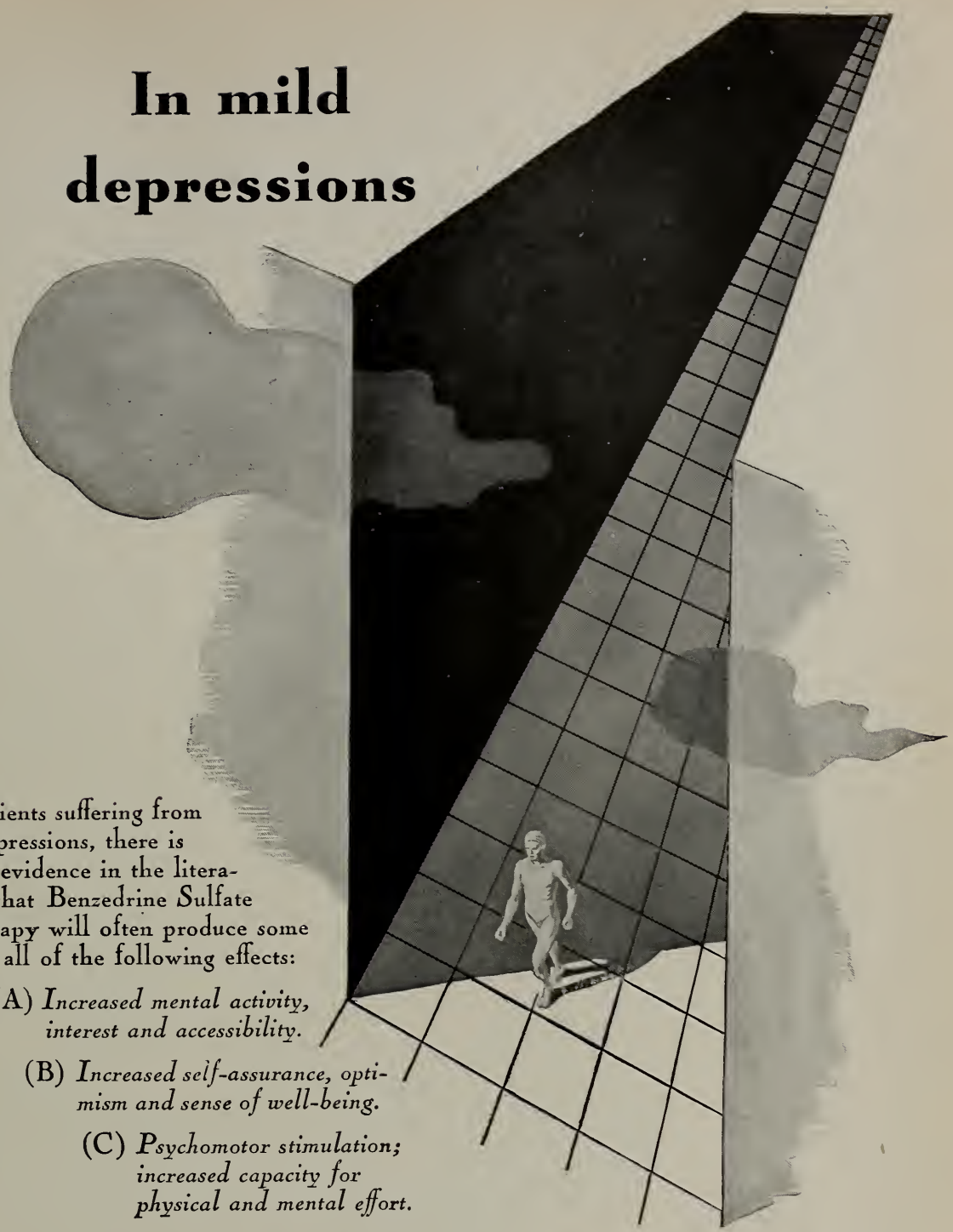
The compensative hypertrophy of the right ventricle ceased long ago, and now secondary dilatation exists, which, as we know, admits of no compensation. The pulse at times is full and tense but varies greatly, at times stumbling along, at other times, intermitting. Often there are rushes of blood to the head, the carotids are seen to pulsate violently, showing that the heart's action is too active, and that the diseased condition is being strained; then follows a change, and there is cyanosis of the mucous membrane of the mouth, and the finger nails are blue. The lungs become the seat of (chronic) congestion, and the pulse grows weak and stumbly. The obstruction to the portal circulation by the embarrassed heart's action, has disorganized physiological function, and produced chronic venous engorgement of all the abdominal viscera. There is intermittent anasarca of the lower extremities. Anginal attacks have never occurred.

She has undergone operations for hemorrhoids, uterine affections, etc., etc., and yet, many, I will not say *all,* did not discover the organic heart disease, which is at the seat of all these ailments, and is especially the cause of the coated tongue.

All these cases have been benefited by the use of digitalis, strophanthus, and nux vomica, relieving the more urgent symptoms, while the free use of tonics, containing iron and the hypophosphites, have improved the general health.

From these cases we learn that organic disease of the heart makes physiological functions pathological conditions, by the interference with the blood in its circulation through the system, especially the portal system; and that many affections that are considered simple, and of little import, and that give no subjective symptoms, are often found to be symptoms of grave organic disease, which can be made out on the first examination, by the careful physician who will make a thorough examination of the case.

# In mild depressions



With patients suffering from mild depressions, there is ample evidence in the literature that Benzedrine Sulfate therapy will often produce some or all of the following effects:

(A) *Increased mental activity, interest and accessibility.*

(B) *Increased self-assurance, optimism and sense of well-being.*

(C) *Psychomotor stimulation; increased capacity for physical and mental effort.*

# Benzedrine Sulfate Tablets

Brand of amphetamine sulfate

Benzedrine Sulfate is primarily useful in depressions characterized by apathy and psychomotor retardation, but is contraindicated in patients manifesting anxiety, hyperexcitability, or restlessness.

The use of Benzedrine Sulfate by normals should not be permitted; it should always be administered under the careful supervision of a physician; and depressive psychopathic cases should be institutionalized.

In treating depressed patients with Benzedrine Sulfate, the physician should bear in mind that any drug which produces pleasant or euphoric effects may prove to be habit forming — especially in unstable or neurotic individuals.

**Smith, Kline & French Laboratories, Philadelphia, Pa.**

# WAR BULLETINS

## REPORT OF THE MEDICAL RECRUITING BOARD

The Medical Department Officer Recruiting Board has completed the first round of physicians in the state and began on July 1 to send out a final letter asking doctors under 37 to apply for commissions.

During the first seven weeks of activity, that is until June 20, applications were received from 499 physicians. Of this number, 131 were commissioned by the Recruiting Board and 5 applications for Major were forwarded to the Surgeon General. Sixty physicians were disqualified for general and limited service, making the percentage of rejections 24 per cent. Another 41 doctors were declared essential by Procurement and Assignment Service.

On June 13, the Recruiting Board began the task of interviewing nearly 700 physicians in Wayne County at the rate of 60 a day. Only those declared "non-essential" by the Wayne County Procurement and Assignment Committee were called. About one doctor in three in Wayne County who has been interviewed has filed an application for commission.

Captain Perry V. Wagley, Medical Corps, former Superintendent of Pontiac State Hospital, joined the Recruiting Board on June 10. He interviews most of the Detroit applicants.

On July 6, the Medical Recruiting Board opened a branch office at the Station Hospital, Fort Custer (five miles south of Battle Creek) for the convenience of the doctors in Western Michigan. Lt. Col. John G. Slevin is stationed at that office.

On July 1, Capt. Wagley visited Pontiac; on July 2, Flint, and July 3, Mt. Clemens, to interview physicians in Oakland, Genessee, St. Clair and Macomb counties.

Doctors in Washtenaw and Monroe counties were seen by Capt. Wagley at Ann Arbor on July 8.

The Detroit office will be open every week day 9:00 a.m. to 5:00 p.m. The address is 320 Federal Building.

## URGENT NEED FOR DOCTORS IN ARMY

There is an urgent need for physicians for the Army. The Surgeon General has issued a second appeal for haste in obtaining the necessary medical officers to serve the sick and wounded. After two months of intensive work by Medical Officer Recruiting Boards and Procurement and Assignment Service, the response has been less than sufficient to meet the demands. Moreover, the unusually high percentage of rejections for physical defects (24%) has aggravated the problem.

As a result of the urgent need, those physicians in the age group 37 to 45 will be called upon very shortly. An official letter from the Medical Department Officer, Recruiting Board, will be sent out prior to the call for the 37 to 45 year age group. However, any physician in this older group who volunteers now will be accepted and commissioned if he passes his physical examination.

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## DEPENDENCY

The impression has been gained by some physicians that recent changes in the Selective Service laws will result in the blanket deferment of all married men. If this were true and all physicians in this category refused to apply for commissions, there would be a complete breakdown in the effort to procure the necessary medical officers for the Army. Since medical officers are as essential to our war effort as are guns or planes, such a situation would, if not corrected, lead to the defeat of the American Army and the loss of the war. So serious is this matter that it could not be allowed to stand. The fact is that the Medical Recruiting Board has been informed by Selective Service officials that physicians will not be deferred under this change in the law. Because they can obtain commissions, physicians generally are not entitled to 3-A classifications. The pay of commissioned rank is considered sufficient to care for dependents in most cases.

Neither the Medical Recruiting Board nor

*(Continued on Page 538)*

# PICTURE OF A PHYSICIAN

## *with a little time to himself!*

**You're right! Something should be done these days to give physicians more time for themselves . . . and S-M-A* infant feeding formula is helping to do it!**

**Take the case of the physician whose patients kept calling up to discuss "Formula Troubles." He decided to save time by prescribing S-M-A for normal infants deprived of breast milk. Don't take our word for it—in a recent survey among 3935 physicians who fed S-M-A, 76% of those reporting said S-M-A saved time; 89% of those reporting said S-M-A was easier for mothers to prepare; 85% of those reporting said with S-M-A they observed freedom from digestive upsets.**

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

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*S-M-A, a trade mark of S.M.A. Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

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*(Continued from Page 536)*

Procurement and Assignment Service is in a position to threaten any doctor with induction. However, it may be stated that Selective Service, knowing the desperate need for physicians in the Army, may consider the induction of physicians. Several physicians from Michigan have already been inducted; others probably will be.

It is hoped that Michigan physicians will realize that the time to enter military service is now. Next fall may be too late. The maximum effort must be made now. A loyal and patriotic response from each doctor under 45, as he is invited to apply, is necessary.

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### MICHIGAN DOCTORS OF MEDICINE NOW IN ARMY SERVICE

Up to May 1, The Adjutant General reported that there are 449 medical officers from Michigan in the armed forces. Since May 1 last, about 200 more have accepted commissions in the Medical Corps. There are on file applications for commission from about 250 doctors of Medicine in Michigan. The recruiting services just started a campaign in Wayne County, where they hope to soon start commissioning about 25 doctors a day. It has been determined that there are 700 doctors of medicine in Wayne County eligible for Army service, and that if these are taken, enough doctors will be left to care for the normal civilian requirements there in these times.

—E. M. Rosecrans, *State Director, Selective Service, in a Memorandum (M-319) to All Draft Boards.*

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### DO YOU KNOW A PHYSICIAN IN THE ARMY OR NAVY?

In so far as possible, a roster of previously unpublished names of physicians in military service will be printed in the August Journal. Anyone who knows of a doctor of medicine from Michigan who is now on active duty in the Army or Navy of the United States, or who has his commission, is invited to send his name, rank, home and latest military address, if available, to the Executive Office, 2020 Olds Tower, Lansing, Michigan. Every effort is being made to maintain an accurate list of all Michigan physicians in military service and the help of every member of the Society will be greatly appreciated.

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## MICHIGAN PHYSICIANS IN MILITARY SERVICE

The following Michigan physicians have recently reported for duty with the armed forces of the United States. This list is supplementary to the ones published in the April, May and June issues of The Journal:

*Calhoun County*—Robert K. Curry, M.D., Chico Field California; Tyre K. Jones, Captain, MC, Camp Bowie, Texas.

*Dickinson-Iron*—James L. Browning, M.D., of Iron Mountain, on duty in the Army.

*Eaton*—B. Philip Brown, M.D., of Charlotte on duty in the Army; D. J. Carrothers, M.D., of Charlotte, on duty in the Army; Ed. Imthun, M.D., Grand Ledge, on duty in the Army.

*Hillsdale*—A. A. Sandor, 1st Lieut., MC, AUS, formerly of Hillsdale.

*Ingham*—Milton Rozan, Lt. Commander, U. S. Navy, MC, Norfolk Naval Hospital, Portsmouth, Va.

*Ionia-Montcalm*—Lloyd S. Dunkin, Captain, MC, AUS, Camp Livingston, La.

*Jackson*—Bernard Murphy, Captain, MC, AUS, Springfield, Missouri; Edward G. Seybold, 1st Lieut., MC, AUS, Flying Field, Savannah, Georgia; John L. Miller, 1st Lieut., MC, AUS, Western Defense Command, San Francisco, California; Fred I. VanWagnen, 1st Lieut., MC, AUS, formerly of Jackson; Edward P. Cawley, 1st Lieut., MC, AUS, formerly of Jackson; Herbert McLauthlin, 1st Lieut., MC, AUS, formerly of Jackson; Edward Virvirski, 1st Lieut., MC, AUS, formerly of Jackson; John Edmonds, Captain, MC, AUS, formerly of Horton.

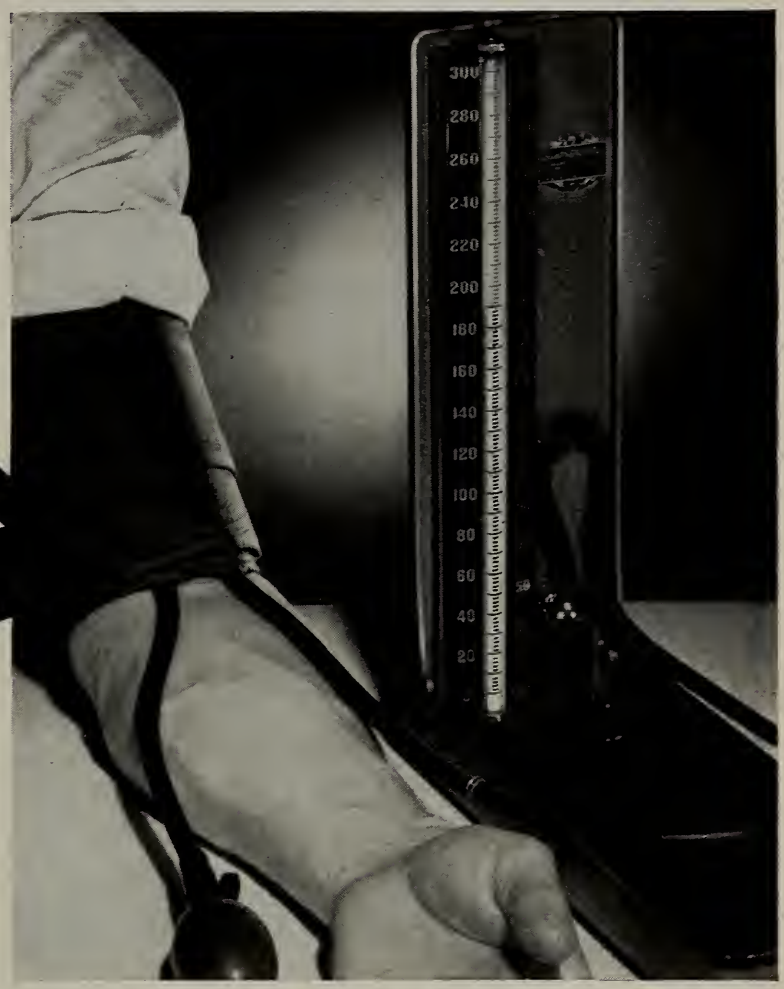
*Kent*—Felix Alfenito, 1st Lieut., MC, AUS, Geiger Field, Spokane, Washington; Charles Bell, 1st Lieut., MC, AUS, 6th Corps Area Hqts., Chicago, Illinois; Luther Carpenter, Captain, MC, AUS, O'Reilly General Hospital, Springfield, Missouri; Mark Dick, Captain, MC, AUS, O'Reilly General Hospital, Springfield, Missouri; C. F. Ingersoll, Major, MC, AUS, University of Indiana Medical Unit, Indianapolis; Emil Roth, 1st Lieut., MC, AUS, Chanute Field, Illinois; Raymond Scully, Captain, MC, AUS, Camp Rucker, Alabama: Arthur Tesseine, 1st Lieut., MC, AUS, Camp Shelby, Mississippi; Bernard Dickstein, 1st Lieut., MC, AUS, 6th Corps Area Hqts., Chicago, Illinois; James Ferguson, 1st Lieut., MC, AUS, Patterson Field, Dayton, Ohio.

*Oakland*—Milton R. Kukuk, 1st Lieut., MC, AUS, Scott Field, Illinois.

*Wayne*—Eugene A. Osius, Lieut. Commander, MC, U. S. Navy, Naval Hospital, Great Lakes, Illinois.

# P-R-O-L-O-N-G-E-D REDUCTION OF

## HIGH BLOOD PRESSURE IN ARTERIAL HYPERTENSION



**ERYTHROL TETRANITRATE MERCK**

causes an initial reduction in blood pressure about fifteen minutes after administration. The greatest decline in blood pressure occurs in about half an hour, and the action persists for three or four hours. Administration of Erythrol Tetranitrate Merck three times daily, in the dosage found most appropriate for the individual patient, may be continued over a prolonged period with sustained effect.

*Literature on Request*

### INDICATIONS

In cases where mild, gradual, and prolonged vascular dilatation is desired. For the reduction of high blood pressure in arterial hypertension. For the prophylaxis and relief of attacks of angina pectoris.

### DOSAGE

The average dosage is ½ to 1 grain every 4 to 6 hours.

### HOW SUPPLIED

Tablets—¼ grain: bottles of 50 and 500.

Tablets—½ grain: tubes of 24; bottles of 100 and 500.

**ERYTHROL TETRANITRATE MERCK**

(Erythrityl Tetranitrate)

**For Prolonged Vasodilatation in Hypertension**

COUNCIL ACCEPTED AMERICAN MEDICAL ASSN. ACCEPTED

FOR VICTORY—BUY WAR SAVINGS BONDS AND STAMPS

**MERCK & CO. Inc.** *Manufacturing Chemists* **RAHWAY, N. J.**

## THE SEROLOGIC DIAGNOSIS OF SYPHILIS

The studies of the comparative merits of the various serodiagnostic methods for syphilis as carried out by the Health Organization of the League of Nations and by the Serologic Evaluation Committee of the United States Public Health Service are reviewed. The extension of similar methods of study to the work of various state, municipal, hospital, and private laboratories showed marked discrepancies in the results of many of these laboratories when their results were compared with those obtained by the originators of the tests employed by these laboratories. For the past five years the work of the state laboratories has been evaluated annually, and there has been a steady improvement in their performance of serodiagnostic tests.

The incidence of biologic false positive reactions in other diseases is from one in 2,000 tests to one in 5,000. The proportional frequency with which positive reactions are to be expected in the various stages of syphilis is 35 to 50 per cent in primary, 100 per cent in secondary and varies widely in later stages.

The significance of the positive cord blood is admitted to be not dependable and the importance of carefully following the increase or decrease in the reagin titre of the new-born blood is emphasized.—F. E. Senear, M.D., Chicago, Illinois. (See Page 549.)

## THE TREATMENT OF FRACTURES

Eleven principles:

1. Splint 'em where they lie.
2. Immediate reduction.
3. Restoration of normal length.
4. Gentleness during reduction.
5. Avoid repeated manipulations.
6. Traction immediately if not reducible.
7. Maintain reduction continuously.
8. Exercise, heat and massage.
9. Avoid open reduction if possible.
10. Two direction x-rays before and after reduction.
11. Compound fractures require highest surgical skill.

—Frederick C. Kidner, M.D., Detroit, Michigan. (See page 556.)

## TREATMENT OF HEMORRHAGE IN OTOLARYNGOLOGICAL PRACTICE

Hemorrhage is the predominating symptom in hemophilia and purpura hemorrhagica. Transfusion is the most effective therapy.

Moderate epistaxis is controlled by packing, chemical coagulation or electrocoagulation. Severe epistaxis is usually controlled by ligation of the external carotid artery and cerebral complications are less than when the common carotid is ligated. Ligation of the external carotid also controls severe post-tonsillectomy hemorrhage.

Massive hemorrhage resulting from infections in the throat and neck produces a high mortality rate. The internal carotid artery is the vessel most frequently eroded. Ligation of the common carotid reduces the blood flow in the internal carotid by only about 50 per cent since there is a backflow from the external carotid. This retrograde current is a very important channel of collateral circulation to the brain when the common carotid is ligated.—By James E. Croushore, M.D., Detroit, Michigan. (See page 557).

## ANGIOID STREAKS IN THE RETINA

Examination of a white man, aged thirty-five, who complained of blurry vision showed two small hemorrhages directly in the macular area of the right eye and in the extreme periphery of the fundus several small areas of old choroidal atrophy were noticed. The most significant finding was the typical angioid streaks scattered throughout the posterior half of the fundus particularly around the nerve head and macula. The fundus of the left eye was found to be almost identical in appearance except that there were no macular hemorrhages present. The vision with this eye was found to be 20/20. General physical examination revealed a definite bronchiectasis in the lower lobe of the right lung. No skin lesions were noticed and there was no clinical or laboratory evidence of Paget's disease.

In the literature there has been no previous case report in which angioid streaks of the retina was associated with bronchiectasis. In the author's case this association may have been coincidental but it is entirely possible that the bronchiectasis is due to the same pathological derangement as are the angioid streaks, namely, a degenerative process involving elastic connective tissue. All cases therefore of pseudo-xanthoma elasticum, Paget's disease, and bronchiectasis should have a complete ophthalmoscopic examination.—Edmond L. Cooper, M.D., Detroit, Michigan. (See Page 563.)

## ROUND TABLE DISCUSSION OF HYPERTENSION

The management of the hypertensive patient includes rest, vacations, exercise, diet and drug therapy. Under drug therapy, phenobarbital, so-

*(Continued on Page 542)*

# Portrait of a Healthy Baby - 1890

PRODUCT of the days when healthy babies more or less "just happened."

TODAY, they don't "just happen." Their progress is charted by careful doctors. Doctors who are constantly increasing the percentage of healthy children by feeding them wisely . . . giving them the advantage of fifty years' advance in the science of infant nutrition.

BAKER'S MODIFIED MILK is a modern food, offering in highly tolerable form seven important *extra* food values favored by modern nutrition. It's rich in essential protein (40% more than breast milk)—plus complementary gelatin, an adjusted fat, two added sugars, extra vitamins and iron.

ARE YOU FEEDING BAKER'S, DOCTOR? We'll send complete information on request.

A powder and liquid modified milk product especially prepared for infant feeding. Made from tuberculin-tested cows' milk in which most of the fat has been replaced by animal, vegetable and cod liver oils, together with lactose, dextrose, gelatin, vitamin B complex (wheat germ extract, fortified with thiamin), and iron ammonium citrate, U. S. P. Not less than 400 units of vitamin D per quart. Four times as much iron as in cows' milk.

AROUND FOOD FOR BABIES

# BAKER'S MODIFIED MILK

AN ALL-

- *Liberal* protein content
- An *adjusted* protein (added gelatin)
- An *adjusted* fat
- *Two* added sugars
- Added *vitamin B complex*
- *4 times* as much iron as cows' milk
- Not less than *400 units* of vitamin D per quart

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*(Continued from Page 540)*

dium sulfocyanate and the nitrites are prominent. Neuro-surgical procedures may possibly be used in the treatment of hypertension.

The second portion of the discussion covers "Recent Studies in Hypertension" in which the background of the relationship between the kidney and hypertension is discussed.

The importance of urologic surgery in the treatment of hypertension is considered. Some emphasis is placed on the surgical removal of a kidney which has been the seat of atrophic pyelonephritis as a therapeutic measure. When hypertension is associated with unilateral renal disease it is difficult to foretell what effect the removal of the kidney pathology will have on the hypertension. Improvement of hypertension follows nephrectomy more often than after conservative operations. Bilateral chronic pyelonephritis is of great importance in relation to hypertension. —G. Thomas McKean, M.D., Frank Bicknell, M.D., Paul Noth, M.D., Detroit, Michigan. (See page 565.)

## FUNCTIONAL CHEST PAIN

A review of 227 records of patients complaining of chest distress. These patients had been advised or thought they had heart disease.

Organic disease was present in forty-three cases. There were nineteen cases judged to have referred pain, either from the gastro-intestinal tract, the spine, or in association with prolonged attacks of paroxysmal auricular tachycardia.

One hundred and sixty-five (72 per cent) were experiencing distress of functional origin. Ninety-three patients (40.9 per cent) were judged to be angina pectoris. Seventy-two patients (31 per cent) were judged to be of non-cardiac origin.

This latter group were classified as definite cardiac neuroses (fourteen patients or 19 per cent); a psychoneurotic group (thirteen patients or 18 per cent), patients who were neurotic, but were definitely not hypochondriacs; and a third miscellaneous group called neuromuscular. Neurotic tendencies, globus hystericus, absent pharyngeal reflex, functional dyspnea, and a reduced threshold for pain were often demonstrated in the first two groups. The neuromuscular group, consisting of forty-five patients or 62 per cent of the seventy-two cases, had very few neurotic tendencies; and the distress varied widely in location and duration as compared with the first two groups wherein the pain was decidedly left-sided, localized in the inframammary region, and superficial and deep tenderness were frequently elicited.

In recent years invalidism resulting from misinterpretation of chest pain, from careless remarks made by the initial professional advisor, from types of medication precribed, or due to some tragic occurrence to some close friend or relative, has occurred with increasing frequency.

It was thought that a review of this type would be helpful in preventing unnecessary mental and physical invalidism from occurring. The interpretation of chest pain is based more on an acquaintance with the patient rather than an evaluation of objective data. The diagnosis, therefore, of angina pectoris can and should be made in the presence of normal findings, but often is unwarranted even in the presence of some abnormal objective findings.—Ben E. Goodrich, M.D., and John W. Keyes, M.D., Detroit, Michigan (see Page 570).

## MENINGO-ENCEPHALITIS TREATED WITH SULFANILAMIDE. CASE REPORT

Virus diseases in general have not been thought amenable to treatment with the sulfonamides. In the case reported here an acute meningo-encephalitis, believed to be of virus origin, apparently responded to treatment with sulfanilamide. The duration of the illness was markedly shortened and there was no debilitating or crippling sequelæ. Whether or not these results may be ascribed to the chemotherapy is not known, but the clinical course of the disease would seem to have been greatly influenced by the sulfanilamide therapy.—Ralph L. Fisher, A.B., M.D., F.A.C.P. and Lyle E. Heavner, A.B., M.D., Detroit, Michigan. (See page 574.)

## DIAGNOSIS OF CANCER

The diagnosis of cancer in the early, curable stage is not too difficult, in most cases, provided we are familiar with the early symptoms and signs. Unless we are, they do not mean much to us. Once we are, we begin to suspect cancer. To suspect cancer is the most important consideration in cancer diagnosis.

Cancer diagnosis requires thoroughness in obtaining histories, and in making physical examinations. Adequate facilities and equipment are essential for the examination of patients—or it won't be done.

Cancer diagnosis calls for help—the pathologist, the roentgenologist, the laryngologist, the bronchoscopist, the urinologist, the esophagoscopist, the gastroscopist, and oftentimes, the experienced clinician. No one can do it alone. Moreover, no one can afford to assume the entire responsibility.

Errors in diagnosis are too costly—first of all, to the victim, because he pays with his life, and then it follows that we physicians are criticized and discredited, and perhaps justly so. Failure of diagnosis of cancer catches up with us, because cancer never cures itself. Relatively few of us are equipped to treat cancer, but all of us have to diagnose cancer. Diagnose cancer while it is still a problem—do not wait until it is too easy.—Henry J. Vanden Berg, M.D., Grand Rapids, Michigan. (See page 576.)

# Take no one's word but your own

*as to the advantages of any one cigarette for patients with irritation of the upper respiratory tract due to smoking*

THE published studies on cigarette differences are merely a starting point. It is only when doctors make their *own* tests . . . on their *own* patients who smoke . . . that they are fully convinced of PHILIP MORRIS superiority.

That is why we suggest that *you* try PHILIP MORRIS on *your* patients. Your findings will confirm the published studies* which showed that:

**ON CHANGING TO PHILIP MORRIS CIGARETTES, EVERY CASE OF IRRITATION OF THE NOSE AND THROAT DUE TO SMOKING CLEARED COMPLETELY OR DEFINITELY IMPROVED.**

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154. Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

**TO THE PHYSICIAN WHO SMOKES A PIPE:** We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

## COUNCIL AND COMMITTEE MEETINGS

1. Monday, May 25, 1942—Postgraduate Medical Education Committee—Statler Hotel, Detroit—4:30 p.m.
2. Monday, May 25, 1942—Medical Preparedness Committee—Statler Hotel—6:30 p.m.
3. Thursday, May 28, 1942—Preventive Medicine Committee—Statler Hotel, Detroit—6 p.m.
4. Wednesday, June 3, 1942—Committee on Revision of Compensation Law—Statler Hotel, Detroit—6 p.m.
5. Wednesday, June 17, 1942—Syphilis Control Committee—Hotel Olds, Lansing—6 p.m.
6. Thursday, June 18, 1942—Executive Committee of The Council, Statler Hotel, Detroit—4:30 p.m.
7. Friday, June 26, 1942—Medical Preparedness Committee—Hotel Olds, Lansing—6:30 p.m.
8. Friday and Saturday, July 17 and 18, 1942—The Council—Drake Hotel, Chicago.

* * *

## COUNTY MEDICAL SOCIETY MEETINGS

*Bay-Arenac-Iosco*—Wednesday, May 27, 1942—Bay City—Program of motion pictures.

*Berrien*—Thursday, May 28, 1942—St. Joseph—Speaker: Lieut. Perry Ross, Grand View Naval Air Base, Grand View, Illinois. Subject: "Eye, Ear, Nose and Throat in Pilot Selection and Maintenance."

*Calhoun*—Tuesday, June 2, 1942—Battle Creek—Golf and social meeting at Battle Creek Country Club.

*Dickinson-Iron*—Thursday, May 7, 1942—Iron Mountain—Program in Charge of R. C. Rettalack, M.D.

*Genesee*—Tuesday, May 26, 1942—Flint—Speaker: Wm. A. Lange, M.D., Detroit.

*Hillsdale*—Thursday, May 14, 1942—Hillsdale—Speaker: Lt. Commander Ben Goodrich, Detroit—Subject "Rheumatic Fever."

*Ingham*—Tuesday, June 16, 1942—Lansing—Speaker: Paul Holinger, M.D., Chicago—Subject: presentation of colored movies of the respiratory tract.

*Ionia-Montcalm*—Tuesday, June 9, 1942—Speaker: Frank L. Rector, M.D., Lansing—Subject: "Cancer."

*Jackson*—Tuesday, May 19, 1942—Jackson—Speaker: Grover C. Penberthy, M.D., Detroit—Subject: "Appendicitis in Infants and Children."

*Kalamazoo*—Tuesday, May 19, 1942 — Kalamazoo—Speaker: Carl Walter, M.D., Boston, Mass.—Subject: "Operating Room Technic."

Thursday, June 25, 1942—Kalamazoo—Joint meeting with Woman's Auxiliary at the Kalamazoo Country Club with golf for the physicians and bridge for the ladies in the afternoon, and entertainment following the dinner in the evening.

*Muskegon*—Friday, June 19, 1942—Muskegon—Business Meeting.

*Oakland*—Wednesday, June 3, 1942—Rotunda Inn—Speaker: Robert C. Moehlig, M.D., Detroit—Subject: "Common Endocrine Conditions and Therapy."

*St. Clair*—Tuesday, May 26, 1942—Port Huron—Speaker: F. T. Andrews, M.D., Bay City—Subject: "The Why and Wherefore of a County Health Unit."

*St. Joseph*—Thursday, May 28, 1942—Corey Lake—Ladies' Night with members of the Woman's Auxiliary of the Michigan State Medical Society as invited guests.

*Shiawassee*—Thursday, May 21, 1942—Owosso—Speaker: Richard H. Lyons, M.D., Ann Arbor—Subject: "Chemotherapy and Its Present Uses."

Thursday, June 18, 1942—Owosso—Speaker: "Joseph W. Nadal, M.D., Ann Arbor—Subject—"Management of Burns."

## Michigan Physicians at A.M.A. Meeting

*Two hundred and six Michigan physicians* registered at the 1942 Annual Convention of the American Medical Association in Atlantic City, June 8 to 12, despite the war, gas rationing and other hindrances. Included in the list from Michigan were the following:

*Monday:* Altshuler, Samuel S., Detroit; Atridge, J. A., Pt. Huron.

Badgley, Carl E., Ann Arbor; Behen, William C., Lansing; Belser, Walter, Ann Arbor; Berman, Harry S., Detroit; Berman, Robert, Detroit; Bernbaum, Bernard, Detroit; Brink, J. Russell, Grand Rapids; Brown, George Maxwell, Bay City; Byrd, Mary Lou, Grand Rapids; Brunk, A. S., Detroit.

Campbell, Mary B., Detroit; Carstens, Henry R., Detroit; Chall, Henry G., Detroit; Chambers, M. S., Flint; Christian, Leo G., Lansing; Clark, Clifford P., Flint; Cohn, Daniel E., Detroit; Coller, Frederick A., Ann Arbor; Cooksey, Warren B., Detroit.

Day, A. Jackson, Ann Arbor; De Pree, Joe, Grand Rapids; Dowdle, Edward, Detroit; Dunn, Cornelius E., Detroit; Dutchess, Charles E., Detroit.

Eschbach, Joseph, Dearborn.

Fisher, Ralph L., Detroit; Falk, Ira E., Detroit; Foster, L. Fernald, Bay City; Franklin, Sidney, Newberry; Frazer, Mary Margaret, Detroit; Freund, Hugo A., Detroit.

Golinvaux, C. J., Monroe; Gorsline, Clarence S., Battle Creek; Gould, S. E., Eloise; Gradis, Howard H., Detroit; Grekin, Joseph, Detroit; Gruber, T. K., Eloise.

Harkins, Henry N., Detroit; Herkimer, Dan R., Lincoln Park; Herrold, Rose E., Detroit; Hess, Charles L., Bay City; Hileman, Lee, Ecorse; Hirschman, Louis J., Detroit; Holmes, Roy Herbert, Muskegon; Hudson, William A., Detroit; Hufford, Alvin Ray, Grand Rapids; Hunter, Elmer N., Detroit.

Jacobson, Samuel D., Eloise; Jewell, F. C., Jr., Detroit; Johnson, Ralph A., Detroit; Johnson, Richard M., Detroit; Johnston, Everett V., Detroit; Jones, Francis A., Sr., Lansing; Jones, Francis, Jr., Lansing.

Kahn, Reuben L., Ann Arbor; Kitchen, Delmas Kendall, Detroit; Kenning, J. C., Detroit; Kernwein, Graham A., Fort Custer; Keyport, Claude R., Grayling; Klein, William, Detroit; Krohn, Albert, Detroit.

Lam, C. R., Detroit; Lauppe, Edward H., Detroit; Leichtentvits, Bruno, Eloise; Lohr, Oliver W., Saginaw; Luce, Henry A., Detroit.

McNeill, Howard H., Pontiac; Maguire, Andrew J., Utica; Marcus, Daniel B., Detroit; Margrave, E., D., Royal Oak; Martin, R. M., Detroit; Maurits, Reuben, Grand Rapids; Moran, Thomas N., Detroit; Myers, Gordon B., Detroit.

Norton, John F., Kalamazoo.

Oden, Constantine, Muskegon; O'Donnell, Dayton, Detroit.

Patterson, D. W., Port Huron; Penberthy, Grover C., Detroit; Peet, Max Minor, Ann Arbor; Perkins, Ralph A., Detroit; Pratt, Jean Paul, Detroit.

Rao, John O., Detroit; Reed, Harry Walter, Detroit; Reeder, Frank E., Flint; Reveno, Wm. S., Detroit; Rowley, L. G., Drayton Plains; Rundles, Walter Z., Flint; Runge, Edward F., Detroit.

Saltzstein, Harry C., Detroit; Sample, John Thomas, Saginaw; Schooley, James Plummer, Detroit; Scott, Robert D., Flint; Selby, C. D., Detroit; Selmon, Bertha E. Loveland, Battle Creek; Shurly, Burt R., Detroit; Stein, Albert F., Fort Custer; Stockwell, B. W., Detroit; Straith, Claire L., Detroit; Sugar, David I., Detroit; Szappanyos, B., Detroit.

Thompson, Oliver E., Battle Creek; Towsley, Harry C., Ann Arbor; Turkel, Henry, Detroit.

Watson, Bernard A., Battle Creek; Waldbott, George L., Detroit; Weller, C. N., Detroit; Wells, Merrill, Grand Rapids; Weyher, Russell Frank, Detroit; Williams, Mildred C., Detroit; Willoughby, Frances Lois, Traverse City; Wittenberg, Samson S., Detroit; Witwer, Elwin R., Detroit; Wygant, Thelma M., Detroit.

*(Tuesday, Wednesday and Thursday registrants will be reported in a later issue.)*

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# The Serologic Diagnosis of Syphilis*

By Francis Eugene Senear, M.D.
Chicago, Ilinois

Francis E. Senear, M.D.

*B.S., University of Michigan, 1912, M.D., 1914. Professor and Head of Department of Dermatology, University of Illinois College of Medicine since 1923. Member of Serologic Evaluation Committee, U. S. Public Health Service, American Medical Association, Chicago Dermatological Society. Society of Investigative Dermatology, the American Academy of Dermatology and Syphilology, the American Dermatological Association.*

During the past few years both the public and the medical profession have shown an augmented interest in the subject of syphilis as a public health problem. The resulting great extension in the use of routine serodiagnostic tests for syphilis has served to focus attention anew upon the many problems presented by their use, and it is our purpose today to consider some of these.

From the time of the introduction of the Wassermann test in 1905 and of the first of the flocculation tests in 1917, the number of modifications of these basic methods rapidly increased to the point where Vaurs in Jeanselme's text listed over one hundred tests described for the serodiagnosis of syphilis, and apologized for the lack of completeness in his list.

Evaluation of the merits of such tests by individuals is conceded to be unsatisfactory. Kahn, for example, has said that "Authors of methods are no less human than others, and they are likely to magnify the merits of their respective methods." The result is that clinicians will often hear diametrically opposed views as to the value of a given method, making it difficult for them to decide on the method of choice. Another source of discrepancy was cited by Mugrage, who pointed out that, "many of the published reports evaluate other tests in terms of a favorite procedure; that this is naturally true of reports by the originators of the different tests, and by their expert assistants, as both have developed a surpassing technic in the procedure in which they are particularly interested."

The Health Organization of the League of Nations, aware of the need for more satisfactory evaluation of serodiagnostic methods for syphilis, held its first laboratory conference in Copenhagen in 1923. A second and more comprehensive conference was held in the same city in 1928. In this second conference there were seven participants who used some form of the Wassermann test, including two who employed the original technic, and eight, including Kahn as the only representative of the United States, who used flocculation tests. All of the specimens of serum were examined in Copenhagen by the various participants. As an indication of the variation in results which may occur with the use of different methods, it is interesting to note that with regard to sensitivity, that is, the ability of a test to detect syphilis when present, the various methods showed in cases of known syphilis, treated and untreated, a percentage of positive results ranging from 63.5 down to 28.2.

A third laboratory conference was held under the same auspices at Montevideo, Uruguay, in 1930. On this occasion there were seven participants employing some form of the Wassermann test, and four using flocculation tests.

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The sensitivity of the various tests ranged from 75.6 per cent to 45.4 per cent.

In the report of this conference it was stated that the majority of the participants agreed that in the hands of Kahn himself, the Kahn standard test was the best of those demonstrated at the conference. As was also true at the second Copenhagen Conference, the Kahn standard test proved to be extremely sensitive and absolutely specific, since it gave no false positive reactions.

### American Evaluation

These conferences were of great value in furnishing information with regard to the comparative merits of some of the available serodiagnostic methods, but some of the earlier American tests were not represented at the conference, and of course new methods had been introduced subsequent to these conferences. In view of the multiplicity of tests in use in this country, the American Society of Clinical Pathologists requested of the Surgeon General of the United States Public Health Service that an evaluation of serodiagnostic tests for syphilis be undertaken in the United States. As a result of this request a committee was formed to act under the auspices of the Service, and a general invitation was extended to serologists in this country who had described an original serologic test or a modification of a preëxisting test.

This evaluation study followed the general plan of the League of Nation's conferences, but differed in one important respect, since the sera were sent to each of the participants, who was thus able to test them in his own laboratory, in most instances along with his routine serological work.

Thirteen serologists participated in the evaluation, four of them performing complement-fixation tests, while nine performed flocculation tests. In the study were used 415 blood specimens obtained from patients with syphilis and 152 from normal, presumably non-syphilitic, individuals. In the syphilitic group there were 43 untreated patients with primary syphilis, 65 untreated patients with early secondary syphilis in the eruptive stage. and 307 patients with late syphilis with varying amounts and kinds of treatment. The results of the examination of the sera from these patients furnished the basis for the determination of the relative sensitivity of the different tests.

*Sensitivity.*—With regard to sensitivity, this can be measured best by the results in the cases of untreated primary syphilis and those of late syphilis, either treated or untreated, as it is to be expected that in the cases of early secondary syphilis the results would be positive in almost every instance. This is borne out by the finding that among cases in the early secondary stage the sensitivity was 100 per cent with ten of the tests, and was over 98.0 per cent with the other three. The percentages of positive reactions obtained by the 13 participants on the sera of the group of syphilitic patients ranged from 88.2 to 64.8 per cent. The average in sensitivity of the nine flocculation tests was 80.3 per cent, and that of the complement-fixation methods 75.1 per cent.

*Specificity.*—With regard to specificity it was highly desirable that every precaution be taken to exclude the possibility of syphilis in any of the donors of blood in this group. Consequently these individuals were examined clinically and serologically reëxamined when more than one positive or more than two doubtful results were reported on any one specimen.

In this portion of the evaluation a specificity of 100 per cent was recorded with five tests: those of Brem, Kahn, Kline, Kolmer and Williams. Among the others, there were from 0.7 to 3.3 per cent of false positive reactions. In this field the average of non-specific positive reactions among the nine flocculation tests was 1.34 per cent, and among the four complement-fixation tests 0.2 per cent.

As most of us are interested chiefly in those tests now more or less extensively used, we may point out that in this study the percentage of sensitivity was 86.6 per cent with the Hinton test, 84.1 per cent with the Eagle test, 80.5 per cent with the Kahn test, 76.3 per cent with the Kline test, and 75.9 per cent with the Kolmer test. From the standpoint of specificity the tests of Kahn, Kline, and Kolmer gave no false positive reactions, while that of Eagle gave 2 per cent and that of Hinton 0.7 per cent of such reactions.

Having thus obtained this information as to the several tests, it seemed wise to attempt to determine the results of these tests when employed by others than those who had originated them. Consequently, under the auspices of the same committee, thirty directors of state, municipal or private laboratories were extended invitations to participate in a study in which they were to perform the tests selected by themselves, while controls on

a comparable sample of blood were to be performed by the originators of each of the methods selected. The results of this study emphasize clearly the wide variations in the reliability of different laboratories. Of the 30 laboratories, 14 performed the Kolmer complement-fixation test. The results of the tests performed by Kolmer, acting as a control for this group, showed 100 per cent specificity and 59 per cent sensitivity. Of the participating laboratories, 8 obtained 100 per cent specificity, while the other six reported from 1 to 3 per cent of false positive reactions. Compared to Kolmer's finding of 59 per cent of positive reactions in the known syphilitic group, the other laboratories reported from 35.3 to 71.4 per cent of positive reactions, a variation of 36 per cent between the two extremes.

With another set of blood specimens, Kline, acting as control for those laboratories using his test, showed a specificity of 99 per cent and 88.8 per cent of positive reactions in the syphilitic group. Of the seven laboratories employing his test 3 reported 100 per cent specificity, while the other four recorded from 1 to 4 per cent of false positives. The results as to sensitivity were more constant than in the Kolmer group, ranging from 69.4 to 93.2 per cent as compared with Kline's 88.8 per cent, a variation of 24 per cent in sensitivity among the several laboratories.

A third set of blood specimens was used for the Kahn test. With these Kahn had no false positive reactions, and 75.7 per cent of positive reactions among the known syphilitic group. Of the 12 laboratories employing his test 8 had a specificity result of 100 per cent, while the others had at most 2 per cent of false positive reactions. From the standpoint of sensitivity, Kahn reported 75.7 per cent of positive reactions, while the other laboratories employing his test reported from as low as 37.6 up to 88.7 per cent, a variation of 46 per cent in the proportion of positive reactions in a group of known syphilitics.

### Tests in State Laboratories

Inasmuch as the present campaign against syphilis has resulted in an increased demand for the services of state laboratories, and since the previously discussed study demonstrated wide variations in the capabilities of different laboratories, there was conducted in 1937 a study of the work of 39 state laboratories, in an attempt to evaluate their use of the complement-fixation, the Hinton, Kahn and Kline tests. In this study comparable samples of blood were examined by all of the participating laboratories and by Hinton, Kahn, Kline and Kolmer. I will not go into detail as to these results, but will summarize by stating that while the control laboratories obtained from 83.9 per cent to 92.9 per cent of positive reactions in the known syphilitic cases, for an average of 87.3 per cent, the average of the participating state laboratories was 71 per cent, an average failure of 16 per cent.

Even more disturbing than the results of state laboratories with regard to sensitivity were the findings relating to specificity. None of the control laboratories reported any false positive reactions, but with the 69 tests performed by the state laboratories, for some performed two or three tests, there was some proportion of false positive reactions in 16 instances and in three of these the proportion of these undesirable reports was 8 per cent, 9 per cent and 10 per cent respectively.

Since this study of the work of state laboratories in 1937, a similar evaluation has been carried out annually. No detailed comment regarding these studies will be made here, but it should be noted that the standard of test performance in state laboratories has been definitely raised since the first comparative study indicated to some directors the shortcomings of the performances under their control. In the 1938 evaluation procedure the average of sensitivity results was only 9 per cent below that of the control participants as compared with a difference of 16.3 per cent in the 1937 study. The results showed a corresponding improvement in specificity, as no State laboratory reported more than two per cent of false positive reports.

The Committee has felt that criteria should be established which could be used to determine satisfactory performance of serodiagnostic tests for syphilis, and proposed that for sensitivity the result should not be more than 10 per cent below that of a control laboratory, while for specificity not more than one per cent of false positive reactions is allowable. Using these standards it is found that in 1938 thirty state laboratories furnished unsatisfactory performances of at least one test, while in 1939 only 22 laboratories were unsatisfactory. Corresponding improvement has been noted in the studies carried out in 1940 and 1941, and it is safe to state that at present the performance of most state laboratories is satisfactory.

As an outgrowth of the evaluation of the work of the state laboratories, it has become possible to certify many of these laboratories as qualified to carry out similar evaluation of the work of the municipal, hospital and private laboratories in their domains. Actually, such intrastate studies have already been offered in some states and carried out on a purely voluntary basis. It is to be hoped that eventually, through this procedure, the practicing physician will be able to obtain information as to the caliber of performance of any laboratory whose service he may desire to use.

**Not all the problems of the serodiagnosis of syphilis would be solved, however, if all laboratories were able to attain perfection in the technical aspects of the use of such tests, for there would remain many questions dealing with the interpretation of results. And it is the practitioner, rather than the laboratory worker, who must be familiar with these problems and must use his knowledge in applying the result of the laboratory test to the individual case.**

### Relation to Stage of the Disease

*Primary.*—It is well known that the proportion of positive serologic reactions to be expected in syphilis varies greatly with the stage of the disease. In the primary stage the reaction does not become positive until the chancre has been present for a variable period, and at the end of the second week of existence of the chancre the proportion of positive results is usually from 35 to 50 per cent, although with some of the more sensitive technics the proportion at this time may be considerably higher. In general, the reaction tends to be found positive somewhat earlier with the flocculation tests than with the complement-fixation technic. From this time on the proportion of positive results gradually increases until the time of the secondary period. Due to the fact that the development of a positive reaction is sometimes delayed for a considerable time, emphasis should be laid upon the danger inherent in ruling out a diagnosis of syphilis, in the case of any suspected lesions, genital or otherwise, on the basis of a negative serologic result.

*Later Stages.*—In the florid secondary stage of syphilis, the serologic reaction is positive with the use of a good technic in practically 100 per cent of cases. In the various studies discussed above, the control serologists uniformly reported positive reactions in all such cases. In view of this, one should be very reluctant to make a diagnosis of syphilis at this stage in the presence of a negative reaction. In the later stages of syphilis, depending on the type of involvement, the proportion of positive serologic results varies within wide limits, and negative reactions, even in untreated cases, cannot in this stage serve to exclude the possibility of syphilis. In recent years the more sensitive technics have greatly reduced the proportion of negative reactions in the later stages, but nevertheless such reactions are to be expected in some instances.

An important consideration in the interpretation of serologic results is that of the biologic false positive reaction. It may be stated that in a temperate climate the occurrence of a repeatedly positive reaction usually means that the patient has syphilis, but there are frequent exceptions to this rule. Considering those diseases which are considered to be capable of giving rise to false positive reactions, we find that frambesia or yaws leads the list, as the serologic reaction is positive in about 75 per cent of patients suffering from this disease.

*Leprosy.*—There has been much controversy in the literature as to the significance of a positive serologic reaction in lepers. Many experienced observers incline toward the belief that non-specific positive reactions are not common in leprosy. In our first study, however, fifty cases of leprosy were serologically tested. All of the patients had been carefully examined and were presumably non-syphilitic, yet the fifteen participants in the study obtained from 40 to 76 per cent of positive reactions. These figures are particularly striking in view of the fact that the sera were obtained from a group of lepers among whom the incidence of syphilis would not be expected to be materially higher than in the adult population of this country as a whole.

*Malaria.*—The question of the effect of malaria upon the serologic reactions for syphilis has also aroused considerable discussion, and a number of writers have expressed themselves as feeling that there is no evidence that malaria causes a positive serologic reaction when modern technics are used. An opposite view has been taken by other equally eminent observers. Wilson has recently studied 262 patients with malarial fever, and obtained a positive serologic reaction in seventy. Of

these 15, or 6.3 per cent, of the positive reactions were felt to be definitely nonspecific in character. In a more recent study conducted under the auspices of the United States Public Health Service, 266 cases of malaria occurring in presumably non-syphilitic white patients were examined serologically by Hinton, Kline, and Kolmer. Hinton reported 4.4 per cent of positive reactions, Kline 6.2 per cent with his diagnostic test and 16.2 per cent with his exclusion test, and Kolmer 4.9 per cent. These percentages are considerably higher than is to be expected among white subjects when care has been taken to exclude syphilis. Further evidences pointing toward the nonspecific character of these results are the higher incidence of positive results among females than among males, and the observations that the second highest incidence in any age group by decades was found in girls less than ten years of age. As a result of this study, it seems safe to assume that malaria, like leprosy, may be the cause of positive serologic reactions to tests for syphilis.

*Other Diseases.*—Among other diseases which appear to give rise to false positive reactions at times are recurrent fever, trypanosomiasis, spotted fever, scarlet fever, endocarditis, septicemia, and infectious mononucleosis. The last named is a rather recent but extremely important addition to this group.

Other conditions which are cited as capable of giving rise to such reactions are tuberculosis, malignant neoplastic disease, jaundice, diabetes, fever from various sources and pregnancy, but there is little evidence to show that confusion will often result from their effects. For example, a recent study of 458 cases of tuberculosis, the patients being carefully selected as presumably nonsyphilitic, showed 8 serums which gave a positive reaction to many tests. Four of these were found to be from patients who were probably syphilitic, while in three instances the patients were not available for reëxamination, and in the other case no evidence of syphilis could be found. The conclusion reached from this study was that tuberculous toxemia may in rare instances cause some confusion in the interpretation of serologic tests for syphilis, but that, with the use of competent tests, it is not a major factor. This statement probably summarizes equally well the status of the other conditions mentioned as occasional sources of false positive reactions.

It is worthy of note that in many of these instances of the production of a biologic false positive reaction by disorders other than syphilis, the reaction is often incompletely positive, varies greatly in strength with different tests and in different laboratories, and often becomes spontaneously negative.

*Children.*—Rothbart has recently recorded the finding of 12 cases in which apparently nonsyphilitic children, seen in a two-year period, showed positive serologic reactions. The incidence was one case in each 550 routinely examined in pediatric practice. In 4 cases the serologic reaction was weakly positive, while in 8 the reaction was strong. In 11 of the 12 cases, the child was suffering with acute or chronic infection. In 11 of the 12 cases the reaction became negative spontaneously. The writer expresses himself as being of the opinion that in children a fluctuating serology which becomes less markedly positive and finally negative without intensive antisyphilitic treatment is not indicative of syphilis.

*Cord Blood.*—The interpretation of the serologic reaction of the cord blood and that of the infant in the first few weeks of life furnishes one of the most perplexing features in the diagnosis of prenatal syphilis. At the outset it must be stated that the serologic reaction for syphilis in the infant may be negative in the presence of infection, and that conversely the reaction may be positive when the infant has escaped infection. Dick states that nearly 40 per cent of all syphilitic infants have a negative serologic reaction at birth. Such negative tests may be present because of the treatment of the mother, because of late intra-uterine infection or because of the immunologic immaturity of the infant. The time at which the reaction will become positive in such cases will depend upon the above factors together with the virulence of the infection and the sensitivity of the test employed. Ingraham found that about one-third of syphilitic infants having a negative serologic reaction at birth developed a positive reaction in less than a month, while about 90 per cent developed the reaction within 3 months, and 96 per cent within 6 months. Dick states that with rare exceptions the reaction becomes positive by the age of 2 months and Davies feels that most infants with prenatal syphilis will develop a positive serologic reaction by

one or more sensitive methods within 4 months after birth.

In 1915, Fildes pointed out that the Wassermann reaction obtained with blood from the placental end of the cord is not diagnostic of syphilis in the infant but of syphilis in the mother. He likewise stated that the phenomenon does not depend on the use of blood from the umbilical cord but is also met with when the blood is obtained directly from the infant. Such reactions depend upon the transmission from the mother to the infant of a sufficient quantity of specific reagin. These positive reactions resulting from such reaginemia tend to diminish or disappear within two weeks' time, and in more than 50 per cent of such cases the blood reaction will become negative within 3 weeks, but in rare instances the positive reaction will persist for at least 3 months after birth. Davies, in eleven cases in which newborns had a positive blood test at birth, and which were followed for six months or more, found congenital syphilis recognizable in two, while nine were symptom free at the end of one year. Almost one-half of fifty-six cases in his series had a positive serologic reaction neonatally, but in only two of the cases was syphilis detected. Brunner found 18 per cent of nonspecific reactions in his series of cases, while Krukenberg put the figure at from 30 to 55 per cent.

Faber and Black studied the titer of the reagin in these cases by means of quantitative Wassermann tests, and they felt that a falling titer of syphilitic reagins probably means a passively transferred reaction, and that on the other hand a titer stronger than that of the mother's blood at the time of delivery or a progressively increasing titer is indicative of syphilis in the infant. Dunham studied by means of quantitative reactions seven cases in which the serologic reaction was positive at birth, and found that the titer gradually weakened until six presented negative reactions at the end of six months, while the seventh, not tested until the end of the first year, then had a negative reaction. Christie recently confirmed their findings, when he tested quantitatively the bloods of fourteen infants born of syphilitic mothers. In eleven instances the serologic reaction became weaker, then became and remained negative within 22 to 86 days. All eleven of these cases have had at least two negative Wassermann reactions, the last test having been made after five months' observation in all cases. In the other three cases, the blood remained positive in reaction, and the titer increased, and all of these patients developed clinical or roentgenographic evidence of syphilis. In the discussion of Christie's paper, Faber stated that Black had retested five of the eight cases originally reported by them and the patients, then all over two years of age, still gave negative reactions.

It must be remembered, however, that a falling titer or complete reversal of the serologic reaction does not give assurance that the infant has escaped infection, as the transmitted reagins in the infant's blood may decrease or disappear completely before a positive reaction develops as the result of the production of reagin through the infant's own infection.

Taking the study of cord blood reactions as a whole, Whipple and Dunham, on the basis of Ingraham's investigations, conclude that the results of the serologic examination of cord blood are not true for 15 per cent of syphilitic infants, and that the presence of a negative reaction of the cord blood fails to guarantee freedom from syphilis in about 40 per cent. Ingraham found that the Wassermann reaction was of value in the diagnosis of not more than 9 syphilitic children among 195 offspring of syphilitic mothers. Cregor and Dalton state that if all the infants with positive serologic reactions at birth were treated for syphilis, 69 per cent would be treated needlessly.

*Biologic False Positive.*—Lastly, I would like to speak of a type of false positive reaction which is a source of great difficulty for the practitioner who encounters it. This is the occurrence of a biologic false positive reaction in an apparently healthy individual who cannot be shown to have syphilis or any other detectable disease. Lorenz states that such a situation is met with about once in every 5,000 serologic tests; Moore, once in 2,000 tests. As a rule the serologic reaction of such individuals falls in the doubtful or incompletely positive zone; the reaction will usually vary in intensity from day to day or week to week with the same test made in the same laboratory; and when tests are performed on comparable samples of blood in different laboratories on the same day variations from a frankly negative to a strongly positive reaction may be encountered. As an illustration I might cite the case of a young woman, observed by Dr. Paul A. O'Leary and myself, whose serum has been tested in twelve different laboratories over a five-year

period. During that time the Kahn test has been negative eight times, one plus nine times, two plus four times, three plus once and four plus four times. The complement-fixation test has been negative twelve times, two plus once, three plus once and four plus once. The Kline test gave a negative reaction once, a one plus reaction three times, two plus four times, three plus twice and four plus once. The Hinton test gave a strongly positive reaction on three occasions, and a four plus response once. In this case there was no history or clinical evidence of syphilis, and examination of the spinal fluid on two different occasions gave negative results. We eventually decided to institute treatment in this patient, and after eighteen months of moderately intensive treatment, the serologic reports continued to show the same discrepancies.

Cases paralleling this one are met with rather frequently, and the interpretation of the serologic reports in such instances brings a tremendous responsibility to the physician. It has been my experience that in nearly all such cases, observation over a long period of time leads to the conclusion that the patient does not have syphilis. Moore, Kahn and others advise the use here of a good quantitative technic for a prolonged serologic follow-up. With such observation, marked fluctuation or spontaneous fall in the titer indicates that the patient is probably not syphilitic.

*Verification Tests.*—The investigative serologist, no less than the clinician, is fully aware of the diagnostic difficulty presented by the biologic false positive reaction, and it is hoped that eventually some method of differentiation of such reactions from those due to syphilis will be developed. Witebsky developed a method which he felt to be useful for this purpose, but the procedure has not been shown to be acceptable, and furthermore, is too complicated for general application. In 1940 Kahn introduced his "verification" test, which he believed should help to detect false positive reactions. This method depends upon the differences in behavior of the sera of animals and humans when tested both at 37° C. and at 1° C. At 37° C. syphilitic sera show a tendency toward negative reactions and animal serums, toward positive reactions. The non-specific results in humans are supposed to correspond in behavior to the positive reactions obtained with serum from animals. It is as yet too early to evaluate the value of this "verification" test, and both favorable and unfavorable comments as to its merits have been expressed up to now.

## Conclusions

A series of serologic studies carried out by the Health Organization of the League of Nations and the United States Public Health Service have demonstrated:

1. That there is available a number of diagnostic tests, developed in the United States, which are eminently reliable, for the serologic diagnosis of syphilis. Among these should be listed, in alphabetical order, those most widely used, namely Eagle, Hinton, Kahn, Kline and Kolmer.

All of these tests lend themselves to capable performance in the hands of others than their originators, as shown by the excellent reports on the part of some laboratory workers. Other workers, however, have demonstrated that, with inadequate technic, their reports can serve only to lead the physician into errors in diagnosis and treatment. Some workers failed to detect syphilis in over fifty per cent of cases where the serologic report should be a positive one, and reported positive reactions in from two to ten per cent of non-syphilitic individuals.

2. It is therefore important that the physician exercise great care in the selection of a diagnostic laboratory.

3. At least two different tests should be used in the examination of each serum, as each method is capable of detecting a certain proportion of positive reactions which might be missed by the other.

4. A single positive reaction, in the absence of conclusive clinical evidence of syphilis, should always call for a recheck.

5. The serologic reactions in late syphilis are often negative, give a positive reaction with one method and negative with another, or with the same method may vary in intensity.

6. Biologic false positive reactions are common in yaws and leprosy, fairly frequent in malaria and will result occasionally from certain other diseases.

7. Serologic results in the newborn are inconclusive, and reactions negative at birth may later become positive or the reverse may occur. In the latter instance it is possible that the infant may not be syphilitic, the temporarily positive reaction resulting from reagin carried over from the infected mother.

8. In rare instances non-syphilitic persons,

with no other demonstrable disease, may show positive reactions, usually only partially positive, and almost always with marked fluctuations in the intensity of the reaction from time to time, even from day to day.

MSMS

# The Treatment of Fractures*

By Frederick C. Kidner, M.D.
Detroit, Michigan

FREDERICK C. KIDNER, M.D.

*M.D., Harvard Medical School, 1904. Head of the Orthopedic Service, Children's Hospital of Michigan and Harper Hospital. Consultant to Receiving Hospital. Member, Michigan State Medical Society.*

THE successful treatment of fractures has always been a serious problem to the medical profession as a whole and to the individual physician. Of late years the enormous increase of industrial and automobile accidents has complicated the problem, first, because the incident fractures are apt to be severe and second, because they so often happen right in the general practitioner's own front yard, far from the conveniences of the hospital. The war in which we are now entered makes the problem still more pressing.

There are certain underlying and absolutely necessary principles, a knowledge of which is essential to success in the treatment of fractures. If we know them and apply them intelligently we can afford to tackle a fracture without fear of a damage suit. If we don't know them we shall be far happier and in the end richer if we turn our fractures over to some one who does.

*Principle 1.*—The first of these principles is the one expressed in the slang of World War I, "Splint 'em where they lie." This means correction at the scene of injury of gross deformity and immediate immobilization by some sort of splint, the best of which is the Thomas. Every physician who may be called on to treat fractures should have at hand a Thomas leg and arm splint. In World War I, before the principle of splint 'em where they lie was adopted by the French and English, the death rate from compound fractures of the femur was 90 per cent. After the stretcher bearers were taught to apply Thomas splints to these injuries on the field of battle, the death rate fell to 27 per cent. In the absence of the Thomas, a satisfactory splint always can be improvised. The patient should not be moved until the splint is applied. Definitive treatment of all fractures should be in a hospital.

*Principle 2.*—**The second principle is that of immediate reduction. On arrival at a hospital all fractures should be reduced as soon as the patient's clothes have been removed and x-rays taken. Never "wait until the swelling goes down," because every minute of delay means plastic organization of damaged soft tissues, contraction of muscles and increased resistance to reduction. Never wait for shock to subside. Reduction of fractures except in plainly hopeless cases does not increase shock but tends to reduce it, by putting damaged muscles at rest, thus stopping hemorrhage and pain. Prompt accurate reduction of fractures will prevent swelling.**

*Principle 3.*—The criterion of successful reduction of fractures is the restoration of normal length to the damaged bone. If this is accomplished alignment will usually take care of itself unless muscle or fascia lies between the fragments. This principle of restoration of length is apparent to everyone when it applies to the shafts of the long bones, but it is equally important in the impacted fracture of the lower end of the radius or tibia, or in the os calcis or elbow, where it is less apparent.

*Principle 4.*—Gentleness during reduction. Fractures should be persuaded into position rather than bullied. Violent manipulation is sure to increase the already existing damage to the soft tissues and thus still further jeopardizes the circulation.

*Principle 5.*—**Avoid repeated manipulations. The foundation of successful healing of fractures is layed in the first few hours and days. Repeated manipulation is a very common cause of delayed union, because it softens callus and damages new blood vessels forming around the fracture.**

*Read before Wayne County Medical Society at Round Table Discussion on "Fractures," January 7, 1942.

*Principle 6.*—Where immediate reduction by manipulation is unwise or impossible, traction must be used and used immediately. Though skeletal traction by means of pins or wires is the most popular method employed in hospitals, old fashioned adhesive plaster can be made to serve the purpose admirably in 90 per cent of the cases. To be efficient, traction must be applied early. Ten pounds of pull in the first twelve hours will accomplish as much as forty pounds later, as a plastic contracture of muscles occurs within that time.

*Principle 7.*—When satisfactory reduction of a fracture has been obtained, the reduction must be maintained continuously without interruption until healing has taken place. Motion at the point of fracture must be absolutely prevented.

*Principle 8.*—During healing of a fracture the function of neighboring joints and muscles must be encouraged by voluntary exercises, heat and massage.

*Principle 9.*—Immediate open reduction and internal fixation of many fractures is undoubtedly the method of choice in a few properly equipped institutions, but it should not be used if it can possibly be avoided, unless the surgical surroundings are perfect. A poor reduction firmly healed is much to be preferred to an amputation or osteomyelitis.

*Principle 10.*—X-rays in two directions must be taken *always,* before and after reduction, and regularly during the course of healing. These x-rays must be preserved and so marked as to be identifiable months or years later. Many a beautifully reduced Colles fracture has slipped days or weeks later to confound the physician months afterward in court.

*Principle 11.*—There are two general classes of fractures—the simple and the compound. The former can be handled by the use of ordinary skill and judgment, but the latter are all dangerous surgical emergencies and require the highest of surgical skill.

# Treatment of Hemorrhage in Otolaryngologic Practice*

By James E. Croushore, M.D.
Detroit, Michigan

James E. Croushore, M.D.

*M.D., University of Michigan Medical School, 1923. Associate attending otolaryngologist, Harper Hospital; assistant attending otolaryngologist, Receiving Hospital. Fellow, American College of Surgeons; Diplomate, American Board of Otolaryngology; Member, American Academy of Ophthalmology and Otolaryngology, Detroit Otolaryngological Society, and Michigan State Medical Society.*

## Blood Dyscrasias

When the otolaryngologist encounters spontaneous hemorrhage, which is difficult to control and is not associated with trauma or surgery, he must at once consider the possibility of a blood dyscrasia and seek the counsel of a hematologist.

The two most common forms of blood dyscrasias in which hemorrhage is the predominating symptom, are hemophilia and purpura hemorrhagica. Hemophilia is a hemorrhagic disease characterized by a marked prolongation of the clotting time of the blood associated with a tendency to bleed. The disease occurs practically only in males, but is transmitted only by the female. It is to be sharply differentiated from purpura hemorrhagica in that the latter occurs in either sex, is rarely congenital or familial. The condition of the blood in these two diseases is very different. In hemophilia the platelets are present in at least normal numbers, the bleeding time is normal and the clot retracts. In purpura hemorrhagica the number of platelets is much decreased, the bleeding time is prolonged and the clot is nonretractile and soft. In the latter condition the coagulation time is usually within normal limits instead of being prolonged as in hemophilia.

One must remember that prolongation of the coagulation time is not pathognomonic of hemophilia, but occurs also in sepsis, nephritis, liver disease and jaundice among other abnormal states. It is rarely as marked in these conditions, however, as in hemophilia.[2]

The one absolutely positive finding in the study

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of hemophilic blood is that the coagulation time and prothrombin time are abnormally long. The coagulation time is often an hour, sometimes several hours, and rarely as short as twenty minutes.[6]

**The bleeding hemophiliac must have absolute rest and sedation. The local application of thromboplastic material is of little value. The intramuscular administration of placental extract may be remarkably effective. The effect of transfusion on the abnormal clotting mechanism is only temporary, yet it is of great value in controlling hemorrhage. About four days after transfusion, the clotting time returns to that before transfusion. Small amounts of blood, 25 to 100 c.c., can affect the coagulation time as much as large amounts. Hemophiliacs can undergo a surgical operation without serious hemorrhage if blood transfusions are appropriately used to hold the coagulation time near normal during operation and while the wound is healing.**

### Nasal Hemorrhage

In spontaneous epistaxis the site of bleeding is usually from the anterior portion of the septum in Kiesselbach's area where there is a generous interweaving of vessels. This area is readily accessible and the bleeding is easily controlled. Various sclerosing solutions are recommended. The silver nitrate bead or full strength trichloracetic acid is effective in the less severe bleeding. If the bleeding vessel is of larger caliber, the most effective treatment is electrocoagulation. With the nose anesthetized with 10 per cent cocain hydrochloride, electrocoagulation may be accomplished easily in adults and also in most children.

If the bleeding is from a persistent nasal ulcer which will not heal from conservative treatment, one should not hesitate to perform a submucous resection of the nasal septum. Most septal ulcers, which are not of specific etiology, will heal as a result of the improved blood supply from the opposite mucous membrane.

Scal[15] uses radium in persistent nasal bleeding when not due to any systemic disease. The author started his work in 1924. He anesthetized the nose with 10 per cent cocaine. Either radium element or radon can be used, a total dosage of 200 millicurie hours of radiation being required for each side. When the element is used, 25 milligrams of radium which is enclosed in a platinum or brass container and covered with gutta percha is inserted into the nostril and allowed to rest against the site of the nasal bleeder. The platinum or brass capsule screens and filters the irritating and destructive alpha and beta rays, permitting only the therapeutic gamma rays to radiate the nasal mucosa. This 25 milligram capsule is allowed to stay in each nostril for four hours, delivering a total dosage of one hundred millicurie hours of radiation. The treatment is repeated in a week until two hundred millicurie hours of radiation are delivered. In a series of over 100 cases, the treatment was successful in all except one or two.

Surgical removal followed by radium therapy is effective in the treatment of pyogenic granuloma of the nasal fossa. Frank and Blahd[7] report five such cases of so-called bleeding polyps successfully treated in this manner.

Dack[3] has reported his success in the treatment of intractable nasal hemorrhage by the subcutaneous injection of moccasin snake venom. The use of moccasin venom was first introduced by Peck and Sabotka[13] in 1931. The rationale of this form of treatment was based on the observations of Peck and Sabotka that animals could be made resistant to the experimental purpura known as the Shwartzman phenomenon by previous injections of moccasin venom. Since Peck and Sabotka could not demonstrate any circulating antibodies in the blood serum that would explain this hemorrhagic effect, and since large doses of antivenin did not influence the cause of the Shwartzman phenomenon, they deducted that the antihemorrhagic effect was probably produced through a direct action on the vessel walls.

The method of treatment as described by the authors consists of subcutaneous injections of moccasin snake venom in 1:3000 dilution. The initial dose for adults is 0.3 c.c. which is rapidly increased to 1 c.c., given twice weekly. The injections are given for at least three months, and with the appearance of a therapeutic effect the interval between injections is gradually increased to from two to four weeks.

**In the acute severe nasal hemorrhage, the origin of which is usually posterior, more drastic measures must be employed for the control of the bleeding. These hemorrhages**

are usually encountered in individuals past middle age. Some have hypertension and arteriosclerotic changes in the vessel walls. These individuals become excited and alarmed at the rapid flow of blood. Large doses of morphine are immediately indicated. If the usual nasal packing does not control the hemorrhage, it has been the essayists' custom to use Monsel's solution on the pack before inserting it. If blood continues to run from the nasopharynx, a nasopharyngeal pack saturated with Monsel's solution is held in place by a thread attached to the cheek. These packs have been left in place as long as four days.

In severe epistaxis, still more difficult to control, one must consider ligation of the vessels supplying the area which is hemorrhaging. Davis[4] has drawn attention to the nasal blood supply.

By studying the drawing shown in Figure 1, it will be seen that the upper part of the nose is supplied by the anterior and posterior ethmoidal arteries arising in the orbit from the ophthalmic artery, a branch of the internal carotid artery. The lower and greater part of the septum is supplied by the nasopalatine artery given off by the sphenopalatine artery, a branch of the internal maxillary artery of the external carotid. The nasopalatine artery branches off at the sphenopalatine foramen and crosses the cavity of the nose on the under surface of the floor of the sphenoid sinus. This artery forms a network of capillaries to anastomose with the septal branch of the superior coronary, lying on the lower edge of the septum just within the nostril. Other branches of the sphenopalatine artery pass to the inferior turbinate and lower edge of the middle turbinate. It will be seen that the upper part of the nose is supplied by the internal carotid, and the lower part of the nose is supplied by the external carotid, a point to be remembered if a large main artery is to be ligated.

Goodyear[8] reported a case of bleeding from the anterior medial wall of the middle turbinate which was controlled by ligation of the anterior ethmoidal artery.

Hirsch[10] reported three cases of severe nasal hemorrhage controlled by the trans-antral approach for ligation of the internal maxillary artery (Fig. 2). Hirsch followed the technique described by Sieffert.[16] The approach is not too difficult for one accustomed to working in deep cavities with artificial light and has the desirable advantage of leaving no external scar.

In view of the high immediate mortality and

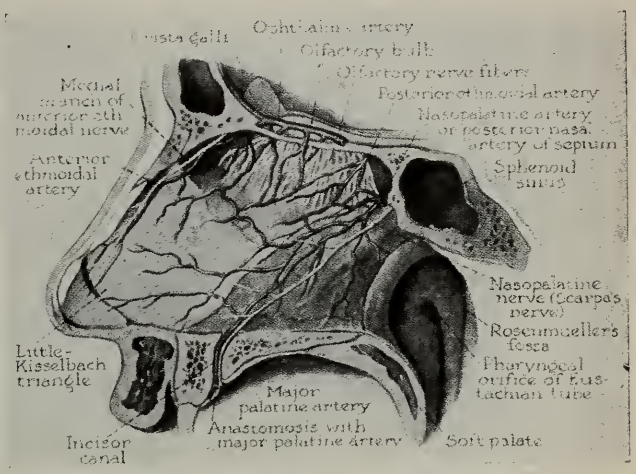


Fig. 1. (From Lederer's Disease of the Ear, Nose, and Throat. Published by F. A. Davis Company.)

the possibility of serious cerebral complications subsequently, ligation of the carotid arteries constitutes a most hazardous procedure even in the severest forms of nasal hemorrhage. From a neurologic point of view, it appears advisable as recommended by Johnson and Foster,[12] and by Strauss,[17] to ligate the external carotid artery only. They based their procedure in the control of severe intractable nasal hemorrhage on the fact that the major blood supply to the nose comes only from branches of that artery. The small anterior and posterior ethmoidal branches of the ophthalmic vessels and perhaps a few slight twigs perforating the cribriform plate come from the internal carotid artery. Thus, from the theoretical standpoint as well as from the neurologic aspect such a procedure promises best results with a minimum of danger. That this point of view is sound may be inferred from Jackson's[11] report of ligation of the external carotid artery in thirty-eight cases with effective control of hemorrhage and without cerebral complications.

### Post-Tonsillectomy Hemorrhage

The most common complication of tonsillectomy is hemorrhage. The bleeding which occurs within the first few hours after operation is the result of relaxation of the walls of vessels severed when the tonsil is removed. Delayed hemorrhage results from superficial necrosis with

erosion of the vessel walls. Tonsillar hemorrhage must aways be considered an emergency in order to conserve the patient's blood. Every surgeon who is doing tonsillectomies should carry in his medical bag at all times a sterile hemorrhage set. This set should be complete to the last detail.

If a child is uncoöperative, a general anesthetic must be given to allow the operator to accomplish his task. Delayed bleeding, which usually occurs about the fifth postoperative day, will usually be controlled by adequate sedation.

In adults, before any manipulation in the throat is attempted, a generous dose of morphine is given. The tonsillar fossa is completely freed of clot and the fossa injected with a solution of 1 per cent novocaine with adrenalin. The pressure on the vessel wall created by the injected fluid will at once stop many hemorrhages and nothing more is necessary. If the bleeding continues for a few moments, then a ligature can be applied to the vessels without pain. In delayed bleeding when necrosis and induration is present, tying of bleeding points is difficult. This type of bleeding is usually controlled by packing the fossa with cotton saturated with Monsel's solution and leaving the pack in place for several hours.

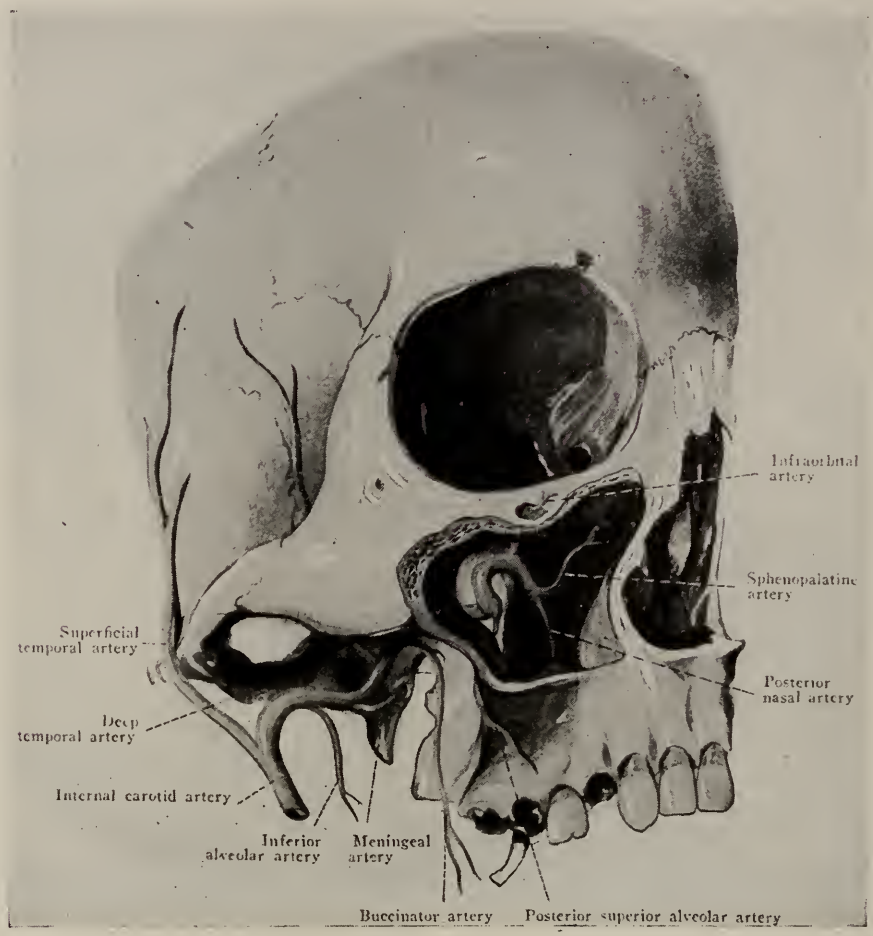


Fig. 2. Posterior wall of the maxillary sinus opened. The internal maxillary artery exposed. (From Kirschner's Operative Surgery Volume on Ear, Air Passages and Neck, by Ravdin. Published by J. B. Lippincott Company.)

Most otolaryngologists do not have as much confidence in the various coagulens as do the respective manufacturers.

Goodyear[9] mentioned a case of intractable oozing from both tonsil fossæ shortly after operation. Packing, thromboplastics and transfusions failed. Finally 10 c.c. of warm whole blood from a donor was injected under the scapula with almost immediate cessation of hemorrhage.

If tonsillar hemorrhage persists after the various accepted methods of controlling it have been tried, one must consider ligation of the main arterial supply to that region. There are five ar-

teries supplying the tonsil, all branches of the external carotid artery; namely (1) facial, (2) lingual, (3) internal maxillary, (4) ascending pharyngeal, (5) descending palatine (Fig. 3).

Since all these vessels are from the external carotid, this would be the vessel ultimately to be tied in an emergency.

### Hemorrhage Complicating Infections of the Throat and Neck

It is quite possible for one with an active practice to go many years without encountering a serious hemorrhage complicating infections in the throat and neck. However, when one is faced with such a hemorrhage, it is a matter of deep concern and the literature is consulted for information on the subject. It is then discovered that much has been written on this apparently rare complication by various authors for the past half century.

Salinger and Pearlman[14] have written comprehensively on the subject and have given an excellent review of the literature. In this review they discuss ligation of the carotid artery and confirm their conclusions by autopsy findings.

For some time there has been a difference of opinion as to whether the thrombophlebitis is the etiologic factor or whether the infection is carried by the lymphatics to the glands adjacent to the large vessels of the neck. There has been ample anatomic, pathologic and histologic proof submitted to support both theories, so that one must conclude that the pathways of infection are both lymphatic and venous, as well as by direct contiguity of tissue, depending on the type of infection.

In attempting to analyze the series of 227 cases collected by Salinger and Pearlman, they grouped them according to the anatomic spaces involved.

Group 1. Peritonsillar abscess.
Group 2. Peritonsillar abscess complicated by involvement of the parapharyngeal space.
Group 3. Retropharyngeal abscess.
Group 4. Retropharyngeal abscess complicated by involvement of the parapharyngeal space.
Group 5. Parapharyngeal abscess.
Group 6. Cervical abscess.

Of the total of 227 cases for all groups, there were 154 in which no ligation was performed, and only thirty-six (23 per cent) recovered. Ligation was performed in seventy-two patients and forty-seven recovered (65 per cent). There were eighteen ligations of the external carotid artery, with eleven recoveries (61 per cent) and fifty-four ligations of the common carotid artery with thirty-six recoveries (67.5 per cent).

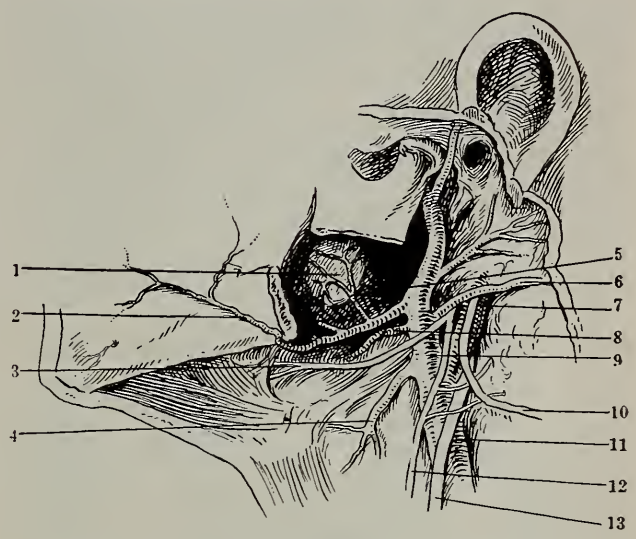


Fig. 3. Dissection of the region of the palatal tonsil from the outside. (1) Capsule of palatal tonsil, (2) facial artery, (3) hypoglossal nerve, (4) superior thyroid artery, (5) tonsillar branch of facial artery, (6) occipital artery, (7) internal carotid artery, (8) lingual artery, (9)external carotid artery, (10) spinal accessory nerve, (11) common carotid artery, (12) descendens hypoglossi nerve, (13) pneumogastric nerve. (From Loeb's Operative Surgery of the Nose, Throat and Ear. Published by C. V. Mosby Company.)

These figures prove that the advantage was in favor of the patient on whom a ligation was performed. The high mortality in the cases in which ligation was not performed was shown in ninety autopsies to have been due to erosion of a major vessel; the internal carotid in most cases.

In cervical infections there was erosion of the internal carotid in one case, the common carotid in one case and the internal jugular vein in thirteen cases.

**In severe hemorrhage from peritonsillar abscess, it seems best to expose the carotid sheath, explore the branches of the external carotid if the source of the hemorrhage is found. If not, the external carotid alone may be ligated and a ligature placed about the common carotid to be tied if necessary. In some cases, the opposite external carotid may require ligation because of the free communication across the midline. In retropharyngeal abscess alone, or complicated by parapharyngeal abscess, the common carotid should be ligated and the same artery should be tied**

**in lateral pharyngeal space infections. In cervical infections, one must expose and ligate or pack off the internal jugular vein.**

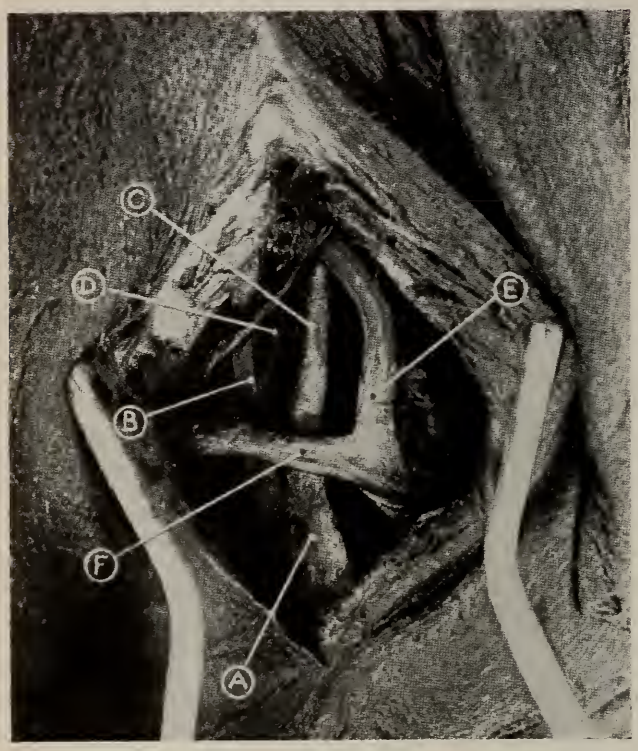


Fig. 4. Dissection showing the lateral prominence of the internal carotid artery. (A) Common carotid, (B) external carotid, (C) internal carotid, (D) ascending pharyngeal, (E) internal jugular vein, (F) facial vein. (From Jour. A.M.A. Dissection by Goodyear.)

Brownell[1] reported a case of hemorrhage in a lateral pharyngeal space abscess which was incised and drained externally. Several days after drainage, an alarming hemorrhage occurred and the common carotid was ligated. The hemorrhage continued until the external carotid was ligated. This back flow of blood from the external to the internal carotid is excellently explained by Dorrance.

Dorrance[5] reopened the neck after ligating the common carotid. He found the internal and external pulsating above the ligature. By using various combinations of clamps, he demonstrated that the blood was flowing under good pressure down the external and up the internal. As a result of verifying this observation six times, he concluded that ligation of the common carotid reduces the blood flow in the internal carotid by about 50 per cent. Almost half of the recurrent flow from the external carotid comes through the superior thyroid. He believes this retrograde current through the external carotid is a normal phenomenon after ligation of the common carotid and that it may be looked upon as a very important channel of collateral circulation to the brain when the common carotid is ligated.

In recognizing that ligation of the common carotid reduces the volume flow in the internal carotid by 50 per cent only, it is obvious that ligation of the common carotid constitutes a partial ligation of the internal carotid. There would appear to be no necessity, therefore, for the procedures of gradual throttling or fractional ligations of the common carotid by the use of special clamps or strips of fascia. It is obvious, also, that ligation of the internal carotid reduces the volume flow of blood to the brain to a greater extent than does ligation of the common carotid.

Since it has been demonstrated that the mechanism of the carotid sinus exists in the bifurcation of the common carotid, one is aware that ligation of the internal carotid carries with it an additional hazard. By increasing the pressure in the bifurcation back of such a ligature, the depressive action of the carotid sinus is increased. The ligation of the internal carotid, therefore, not only results in a greater reduction in the volume flow of blood to the brain but also produces a greater shock to the cardiovascular equilibrium.

When ligating vessels in the neck, it is well to remember that the terms external and internal carotid are rather misleading, applying rather to their relation to the outside and inside of the skull than to their relative positions in the neck. Textbooks do not emphasize the point that the internal carotid actually lies more superficial than the external and at just above the point of bifurcation (Fig. 4).

Most textbooks indicate that the bifurcation of the common carotid is at the upper border of the thyroid cartilage, but it is well to remember that the bifurcation may occur above the angle of the jaw. Barnhill has emphasized this point in his surgical anatomy.

When one states that the mortality rate is high in ligation of the great vessels of the neck, that thought should not cause too great a delay in ligation. Other factors influence the death rate. All these patients are poor operative risks. They have lost much blood, some are septic and others have fatal maladies which led to the liga-

tion. These views are supported in forty ligations for epilepsy collected by Wyeth[18] in which the patients were not debilitated and there were only two deaths.

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# Angioid Streaks in the Retina

## A Case Report


**By Edmond L. Cooper, M.D.**
**Detroit, Michigan**

EDMOND L. COOPER, M.D.

*M.D., University of Michigan, 1933. Member of Staff of Harper, Receiving, and St. Mary's Hospitals, Detroit. Diplomate, American Board of Ophthalmology. Special Instructor in Ophthalmic Anatomy for Graduate Students, Wayne University College of Medicine. Member, Michigan State Medical Society.*


▪ PROBABLY over a hundred cases of angioid streaks in the retina have been reported in the literature. Therefore the condition is not rare but it is sufficiently uncommon to warrant presentation of a case.

D.M., a white man, aged thirty-five years, was examined because of the complaints that for six weeks he had noticed that things looked blurry with the right eye. The onset of the trouble was marked by a definite metamorphopsia. Straight lines did not look straight to him. There were no other ocular symptoms. There was a history of some eye trouble on his father's side of the family. His father's mother died blind and was said to have had ruptured blood vessels in both eyes. The father had some eye trouble the nature of which is not known.

His general health had always been good except for a productive cough of eight years' duration.

The vision with the right eye equalled 20/70-2 and this could not be improved with lenses or pinhole disc. The external examination of the eye gave negative results. In the fundus two small hemorrhages were seen directly in the macular area. Just above the macula were several spots of pigment heaping. In the extreme periphery especially above and temporally were several spots of choroidal atrophy, with pigment heaped up around the edges and the sclera showing through. Also scattered throughout the fundus were several small hard white spots. The disc appeared normal. The most significant finding was the black-brown lines or streaks which partially surrounded the disc and radiated outwards in angioid fashion. These streaks apparently lay beneath the retina since the retinal vessels passed over them and unlike blood vessels they were of different and varying breadths. One particularly large streak extended from the disc through and past the macula and the macular hemorrhages seemed to be associated with it.

The left eye was similar except that no macular involvement was noted. Vision with the left eye equalled 20/20.

The patient was referred for a general physical examination with the following findings: There was an area in the lower lobe of the right lung which x-ray showed to be bronchiectatic. Two sputum examinations were negative for tubercle bacilli. The blood count, Kahn and urinalysis were normal. No skin lesions were noted. There was no evidence either in the history or the examination to suggest Paget's disease.

The diagnosis was angioid streaks in the retina, O.U.; macular apoplexy, OD; and chronic bronchiectasis.

### Discussion

Angioid streaks in the retina were first mentioned by Herman Knapp in 1892. It is a peculiar condition of the fundus oculi consisting of one, two, or several brown, reddish brown or black striæ, branching like vessels and usually occurring most densely in the area immediately surrounding the optic nerve head. The edges of the streaks are jagged or serrated and they lie beneath the retinal blood vessels.

Sooner or later the macula always becomes involved, the macular changes taking the form of hemorrhages and exudates or fibrous plaques similar to those seen in disciform degeneration.

Smaller, non-prominent, almost round white spots are often found in the periphery of the fundus. Both eyes are always involved.

*Pseudoxanthoma Elasticum.*—In 1929 Gronblad and Strandberg reported two cases of angioid streaks in the retina associated with a typical skin lesion known as pseudoxanthoma elasticum. The association of these two conditions has been repeatedly confirmed. Pseudoxanthoma elasticum is a rare skin disease the lesions of which are pin-head to pea-sized, discrete, irregularly outlined papules. These may fuse into patches of varying size. They are of a yellowish color. They occur chiefly on the sides of the neck, axilla and the abdomen. The face, hands and other areas usually the site of true xanthoma, are free. Histologically it has been shown to be a degenerative process affecting the elastin, the elastic fibers of the skin being swollen, degenerated, and broken. From this it becomes apparent that angioid streaks are the ocular manifestations of a general disease involving probably the elastic connective tissue. This explains why cases of pseudoxanthoma elasticum are seen without angioid streaks and vice versa. The case reported here showed no evidence of any skin lesions.

*Bronchiectasis.*—There is some question whether bronchiectasis may not be associated with a degeneration of elastic tissue in the bronchioles. A comprehensive search of the literature failed to reveal any other reported cases in which angioid streaks and bronchiectasis occurred together. The present case shows these two conditions co-existing but whether they have a common etiology is a question which cannot at present be answered.

*Paget's Disease.*—Verhoeff, in 1931, reported a case of angioid streaks associated with Paget's disease, or osteitis deformans. This is a chronic inflammatory affection of the bones characterized by hypertrophy and softening. It is usually confined to adult life and the lesions are usually symmetrical, the lower extremity, spine, and skull being most frequently involved. Seven cases in which these two conditions have been associated have since been reported.

*Pathology.*—The ocular pathology of angioid streaks has been the sources of much investigation. Some men have felt that the angioid streaks were hemorrhages. The idea that the streaks were new blood vessels has been advanced but objected to on the ground that the streaks are of varying widths. They have been interpreted as being folds in the choroid or retina. The most probable explanation was given in 1916 by Koeffler who expressed the belief that they were ruptures in the lamina vitrea of the choroid.

Proof of this was given by Hagedoorn of Holland early in 1939. In microscopic sections he demonstrated marked thickening of the lamina vitrea in cases of angioid streaks. Fne rupures could be seen in it, while in many places the lamina vitrea was absent over larger areas.

*Diagnosis.*—Angioid streaks, no matter how varied in shape and color, are generally so typical that few conditions can give rise to difficulties in diagnosis. Since angioid streaks themselves do not produce clinical symptoms the patients are not usually seen unless the macula becomes involved. Therefore a whole group of macular conditions may provide some difficulty in diagnosis. Among these disciform degeneration of the macula (Junius Kuhnt) and ordinary senile macular degeneration are the most important and related. However, a careful examination of the fundus and skin will usually establish the diagnosis. Congenital melanosis of the retinal vascular system is apt to cause difficulty. It is differentiated from angioid streaks by the fact that the streaks in the former condition are of uniform width, are not grouped near the nerve head but extend into the periphery of the fundus, and sometimes can be actually seen to contain blood. The choroid is almost always involved in true angioid streaks but never in congenital melanosis of the retinal vascular system.

In view of the fairly poor prognosis in cases of angioid streaks all cases of pseudoxanthoma elasticum and Paget's disease should have a thorough examination of the eye grounds. It is suggested also that the ocular fundi be examined in all cases of bronchiectasis to determine the frequency of association of this condition with angioid streaks in the retina.

MSMS

Tokio discloses via radio that the Japanese, "preparing to fight a hundred-year war," are launching a public health and baby-breeeding program. It will be similar in many ways to campaigns in Germany.

# Hypertension

## Round Table Discussion*

### Noon Day Study Club

*The Noon Day Study Club was organized within the Wayne County Medical Society in 1929 with the aid of the parent society. The motivating purpose of the Study Club from the very beginning was to give the younger doctors (under forty) an opportunity to obtain experience in the organization and functioning of a medical society.*

*Participation in the Study Club was enthusiastic from the very beginning and it has continued to be one of the strongest subgroups of the parent society. Many members have been substantially aided by their Study Club experience to go ahead in later years and take an important part in the functioning of our county and state medical societies.*

*Study Club meetings are held every Tuesday noon, throughout the fall, winter, and spring months. Meetings are devoted to presentation of timely medical topics by a member of the club, with time being allowed for discussion by the members. In general, the topics are divided evenly between medical and surgical subjects, with several meetings being devoted to clinico-pathologic presentations and round table discussions.*

## MANAGEMENT OF THE HYPERTENSIVE PATIENT

**By G. Thomas McKean, M.D.**
**Detroit, Michigan**

Each patient with an elevated blood pressure must be considered a potential cardiac failure, a potential cerebral accident, or a potential uremia. These are the eventual causes of death in these patients if no intercurrent neoplasm, infection, or accident interrupts their course. The physician's efforts must be directed toward postponing the occurrence of any of these eventualities.

The term *management* of hypertensive patients is purposefully used to cover the first part of this discussion; for it is supervision of the patient's life that plays the largest role in our attempt to treat elevation of arterial pressure. Such supervision must be based upon a thorough knowledge of the environmental life and habits of the patient. No prescribed regime will fit each individual case. As the first essential of any such regime, rest must be provided. Frequently the routine of life of the patient must be thoroughly revised. He can no longer practice the kind of daily activities which our present hurried existence seems to demand.

The use of regular vacations and of periodic complete rest days both have a place in the attempt to improve the elevated blood pressure. It may prove most satisfactory for the patient to take a week off every three months or to spend one day of every week in bed. These measures, however, are only steps in the right direction. A more important change of routine is the establishment of a daily one- to two-hour rest period in the middle of the working day and the insistence on regular, adequate hours of sleep at night. Still more important is the instruction of the patient in methods of relaxation and increasing his ability to recognize when such relaxation or rest is essential. Fatigue is to be thoroughly avoided.

*Exercise.*—Well-regulated exercise is another factor in the plan of life for the hypertensive patient. Walking, golf, and riding horseback are the exercises usually advocated in such instances. The patient must learn with any such exertion when palpitation, dyspnea, or a feeling of fatigue is likely to appear and so restrict the exercise that he stops short of this point. Any sudden strain on the circulation must be avoided. He should be advised against straining at stool, walking against high winds, lifting heavy weights, *any* form of violent exercise, and high altitudes.

*Diet.*—Diet is of great importance to the patient with an elevated blood pressure who is overweight. I believe there is real lasting benefit to be gained in the obese hypertensive by a sensible program of reduction to a normal weight. The use of a 1,000 to 1,500 calorie diet with observation to induce a loss of approximately one or two pounds per week is most commonly advocated.

There is no sound basis for the restriction of any variety of protein in the attempt to reduce blood pressure. If the patient is not overweight, no special attention need be given to diet measures. Excessive indulgence in coffee, alcohol and tobacco are generally to be advised against.

*Drug Therapy.*—Sedative drugs are useful in securing adequate rest for these patients. Phenobarbital is most commonly used in doses of ¼ to ½ grain three or four times daily. This dosage must be regulated to the individual, using only sufficient medication to induce an effect without the production of drowsiness or impaired mental activity.

Sodium or potassium sulfocyanate is enjoying

*Held at Noon Day Study Club (Wayne County Medical Society), Detroit, 1941.

the position of being the most popular of the drugs which have some claim to being specific. Authorities vary in their figures as to the percentage of successful reduction of arterial tension to be attained by the use of this drug. All admit that toxic manifestations must be guarded against and there is too small a margin between the effective and the toxic dose. The introduction of a satisfactory method for following the blood level has aided the safer use of sulfocyanate.

One method advanced as a safe schedule of dosage is the following: 1½ grains (0.1 gram) three times daily after meals for one week, twice daily for the second week, and once daily thereafter. Individual variation seems to be so great that the use of blood determinations is best to ascertain whether too much is being given or to assure that a proper therapeutic level has been attained. The concentration of eight to fourteen milligrams per cent is suggested as the desirable level.

Everyone using sulfocyanate must be familiar with the toxic manifestations, of which the following are the most common: Weakness, nausea, vomiting, coryza, disorientation, aphasia, hallucinations of sight and hearing, and anginal symptoms. Exfoliative dermatitis has been observed. Fatalities following delirium, convulsions, and coma are reported. It may take several days for symptoms to clear.

Of the many other drugs which have had their day in the attempt to lower blood pressure, only the nitrates continue to be used to any extent. The main use of these is for a temporary amelioration of symptoms associated with the elevated arterial tension.

*Surgical Treatment.*—Three neurosurgical procedures have been done to a sufficient degree to afford an approach to a true evaluation of the usefulness of these operations. Crile performs the celiac ganglionectomy, Adson the subdiaphragmatic splanchnic and lumbar sympathetic resections, and Peet the supradiaphragmatic splanchnicectomy. It seems to me fair to say that there is no adequate scientific rationale for any of these procedures. It also appears to be only fair to a patient who has had careful study and management by medical measures without success that he be given the opportunity to decide whether or not he wishes to risk such an operation. There is no denying the occasional gratifying results of each of the operations.

## UROLOGICAL ASPECTS OF HYPERTENSION

**By Frank Bicknell, M.D.**
**Detroit, Michigan**

■ As a result of the researches of Goldblatt and Page there has been considerable interest created in the etiological relationship of the surgical kidney to hypertension. Study of the incidence of hypertension in patients with surgical kidneys reveals that there is no higher incidence here than in a similar group of controls. The age factor seems to have more influence than any other; thus hypertension is common in patients with hypernephroma but on analysis of the cases it is seen that the majority of them are in the sixth decade or over. The incidence of hypertension with renal tuberculosis is very low but here again the age factor is apparent, as most of these patients are in the early decades.

**Analysis of surgical kidneys reveals that there is only one factor that has any clear correlation with the incidence of hypertension, that factor is chronic infection with sclerosis of the renal tissues. Thus, in chronic pyelonephritis there is a high incidence of hypertension when there is an associated atrophy of the renal tissues and a low incidence when there is no associated atrophy. This can be dramatically demonstrated by an analysis of the results of the surgical treatment of unilateral atrophic pyelonephritis; here we are able to obtain a definite fall in blood pressure in 70 per cent of the cases operated upon. However, it is difficult to prognose how the hypertension is going to respond to surgery in each case preoperatively, the known duration of the hypertension; the presence of secondary hypertensive changes in other tissues and the health of the other kidney must all be taken into consideration in determining the prognosis.**

The incidence of hypertension associated with nephrolithiasis is no greater than is found in a group of controls. However, upon analysis of the cases it is found that when there is an associated infection and atrophy of the renal tissues with the stones that the incidence of hypertension is about three times as common as when the stones are uncomplicated by these factors. This

is further demonstrated upon analysis of the results of surgical treatment of renal stones; when radical measures as nephrectomy are used the blood pressure returns to normal much more often than it does when conservative procedures such as nephrostomy, pyelotomy and nephrotomy are used. Operation may in some cases be considered the etiological factor, for it has been observed that often after very severe kidney operation for stone where the stone has been elusive and there has been much operative damage to the cortex, hypertension has developed in patients who had normal blood pressures before the surgery was performed. In these cases the hypertension has responded well in most cases to the removal of the damaged kidney.

Back pressure on one kidney apparently has no effect upon the blood pressure. Thus the incidence of hypertension with hydronephrosis is no greater than with the controls; where hypertension is associated with hydronephrosis the size of the hydronephrotic sac has no correlation with the degree of hypertension. Also the size of the hydronephrotic sac has no correlation with the incidence of hypertension. In spite of this lack of correlation between hydronephrosis and hypertension about twenty per cent of the cases of hydronephrosis with hypertension respond favorably to surgery. Here also the response seems to be better when nephrectomy is performed than when there is an attempt made to correct the hydronephrosis by conservative surgery.

Thus in analyzing the relationship of hypertension to surgical kidneys we must conclude that we may expect good results in the improvement of the hypertension with the removal of chronic atrophic pyelonephritic kidneys and that with stones, tumors and tuberculous infections and hydronephrosis we may expect an occasional improvement in the associated hypertension but that in most cases the hypertension is not the result of the surgical kidney but is a coincidental affliction.

## RECENT STUDIES ON HYPERTENSION

**By Paul Noth, M.D.**
**Detroit, Michigan**

■ The controversy over the etiology of essential hypertension really started in about 1872 when Gull and Sutton expressed their opinion that a hyalin-fibroid change in minute arteries, arterioles and capillaries of various tissues was the primary and essential phenomenon in cases of chronic Bright's disease with contracted kidneys. They stated that this degeneration of the blood vessels commonly began in the kidneys, but that it might begin in other organs so that hypertrophy of the heart with degeneration of the blood vessels might be found associated with healthy kidneys. Clifford Albutt and Janeway subscribed to this view, the latter believing that hypertension may arise in "primary irritability of the vasoconstricting mechanism from unknown, probably extrarenal causes, which lead eventually to arteriolar sclerosis." Among the German clinicians, Fahr continued to regard all hypertension as secondary to renal disease while Volhard, though temporarily subscribing to this idea, changed his opinion in regard to benign hypertension, which he felt, at least in many instances, was due to an increase in the sensitivity of the vascular system and had nothing to do with the kidneys. The opinion in this country generally followed the viewpoint which regarded essential hypertension as usually independent of renal disease, the renal lesion being only a part of a diffuse vascular disease. This separation of essential hypertension from forms of renal hypertension was based on pathologic evidence—the finding of minimal or no renal lesions in clinical cases of hypertension with arteriolar changes in various other organs—and partly on the clinical evidence that one found hypertension without clinical evidence of renal damage, without the anemia which was usually found in cases of chronic nephritis, and with hypertensive retinopathy which was, not infrequently, quite different from that seen in chronic nephritis. It was recognized that the end stages of the two diseases might be practically identical, both clinically and pathologically in some cases. These points are mentioned to emphasize the fact that our concept of the cause of essential hypertension must take into account the weight of the studied opinions of experienced clinicians and pathologists and not veer too easily to another concept, "renal hypertension," which is based largely on a different chain of evidence, that of the production (in animals) of hypertension with its vascular sequelæ in a form closely resembling human essential and malignant hypertension. There is also certain other evidence in support of the latter concept. This is based on complicated chemical interactions, as yet incompletely understood.

Prior to Goldblatt's work on this subject, which first appeared in 1932, a number of workers had produced experimental hypertension by various operations upon the kidney and its blood supply, but most of this work resulted in only slight and temporary hypertension which bore little resemblance to human hypertension. Goldblatt, by varying the amount of constriction of the renal arteries, is able to produce one form of chronic hypertension which has lasted as long as five years in some experiments, and is accompanied by only slight degrees of renal damage. Another form of hypertension (much more fulminating in its course) is produced by severe constriction of both renal arteries. This type is accompanied by retinal lesions consisting of papilledema, hemorrhages, exudates, and frequently detachment of the retina. The first type closely resembles human "benign" hypertension; the second, human "malignant" hypertension. This experimental hypertension seemed to be due to the liberation of a chemical substance by the ischemic kidney into the blood stream, which substance, in some way, directly or indirectly, caused arterial vaso-constriction. The effect of nervous reflexes was excluded by the demonstration that even the removal of practically all the sympathetic nerve fibers supplying the vascular system did not prevent or abolish the hypertension. For a while the idea was entertained that certain endocrine products, possibly of the pituitary gland or the adrenal cortex, were an essential part of the humoral mechanism of hypertension; but later studies have isolated other substances, presumably not glandular in origin, to complete this mechanism.

Tigerstedt and Bergmann in 1898 discovered that extracts of kidneys contained a protein which, when injected intravenously, caused a prolonged rise in arterial pressure. Recent purification of renin by Page has shown that renin alone is not a true pressor substance, but that it reacts with a substance in the pseudo-globulin fraction of blood called renin-activator to form a third substance called angiotonin. Angiotonin is in turn activated by another substance called angiotonin-activator to form the active pressor substance. Also concerned in this mechanism is a substance present mostly in the kidney which is called "angiotonin-inhibitor." Thus, the kidney can apparently not only initiate hypertension but may also counteract it, and there is some evidence to indicate that the severity of the hypertension depends upon the ratio of ischemic to normal renal tissue.

Page emphasized the point that interference with renal blood flow causes the liberation from the kidney of increased amounts of renin. This reacts in the manner described and produces more interference with renal blood flow, thus establishing a vicious cycle.

Further studies by Page and others have added evidence to the possible common mechanism if not the common genesis of experimental renal hypertension and human essential hypertension. Page has demonstrated increased amounts of pressor substance in the blood of hypertensive patients and experimental hypertensive animals. Also, by means of studies of renal blood flow and of glomerular filtration in both hypertensive patients without evidence of renal damage as measured by the urea clearance test, and in dogs with experimental hypertension, Page and others have demonstrated in both an increase in glomerular filtration in proportion to the renal blood flow. This proportionate increase in filtration is explained by an increase in the pressure in the glomerular capillaries due to spasm of the efferent arterioles of the glomeruli.

**Page and his co-workers and, independently, Harrison and his group, have recently prepared extracts of normal kidneys which contain this angiotonin inhibitor or antipressor substance. With it they have been able to produce a fall in blood pressure in some animals with experimental hypertension. This fall is usually short in duration and does not appear until two to four days after injection. The substance seems to have a cumulative action, excessive dosage causing a continued fall in blood pressure with production of a shock-like picture and death. In the animals studied by Page which had developed the retinal picture of malignant hypertension, this extract caused the disappearance of papilledema and retinal hemorrhage. In twenty-two instances it apparently saved the lives of these animals since, if the experiment is allowed to run the usual course, they die quite uniformly within a certain period.**

Page also reported his results in the treatment of a small group of patients with benign and malignant hypertension. In nine patients

with fixed essential hypertension there was a considerable fall in blood pressure, although it only occasionally returned entirely to normal. Headache, dyspnea, and other symptoms were considerably relieved. Of the six cases with malignant hypertension, two were comatose and a third was having convulsions on admission. In three of the six there was dramatic clinical improvement consisting of a fall in blood pressure, regression of ocular findings with restoration of vision, and relief of headaches. Three of these patients died subsequently, one after stopping treatment of his own accord. In general, there was little effect in renal function in the cases studied, although renal blood flow increased in some.

Now what does this all mean in considering the future of the treatment of essential hypertension? Obviously the number of human cases treated by Page is too small to permit drawing any definite conclusions. However, the present results and the possibility of progress in the preparation of purer, more potent extracts are promising. At least one reliable worker has had great difficulty in preparation of the anti-pressor extract and the production of definite results in dogs with renal hypertension. Goldblatt is working on the problem and is said to have arrived at some conclusion as to the nature of the anti-pressor substance.

There are still several things to explain before the renal origin of essential hypertension can be considered to be established. If one assumes that essential hypertension is renal in origin what produces the original abnormality in the blood flow through the kidney which initiates the vicious circle leading to hypertension? Could this be a vasomotor instability which is inherited—as careful studies indicate that essential hypertension follows an hereditary pattern? Might renal denervation performed early in the course of hypertension increase the blood supply and relax the efferent glomerular arterioles and so make unnecessary the prolonged administration of the renal extract?

# A Simple Qualitative Test for Sulfonamide Drugs in Urine*

By Raymond W. Monto, M.D.
Detroit, Michigan

■ The sulfonamide drugs are excreted chiefly through the urinary tract. Small amounts may be lost in tears, saliva, milk, sweat, and feces. Quite often in the treatment of a patient, it is of importance to determine qualitatively the presence of the drug in the urine.

In usual sulfa drug therapy from 200 to 350 mgm. per 100 c.c. of the substance is excreted in the urine. Upon addition of 1 c.c. of a 2 per cent solution of paradimethylaminobenzaldehyde in 20 per cent hydrochloric acid, to the urine of individuals receiving this therapy, a precipitate forms immediately.

If the specimen should contain less than 25 mgm. per cent, a yellowish green color appears. In urine that has a concentration above 25 mgm. and less than 250 mgm. per cent, a yellow precipitate is seen. Over 250 mgm. per cent will produce a heavy orange precipitate. All of the concentrations given are in terms of free sulfonamides; the acetylated form is not detected by this method.

The test is best performed by the addition of 1 c.c. of the paradimethylaminobenzaldehyde solution to 10 c.c. of urine which has been cooled to room temperature. The method is unsuitable in patients who are jaundiced or contain abnormal amounts of urobilinogen in the urine.

Several compounds will give positive reactions, but these are never given in sufficient quantities to produce a positive reaction when excreted in the urine.

The testing solution is kept best in a dark container. The aldehyde may be purchased from the Eastman Kodak Company of Rochester, New York.

*From the Department of Medicine, Henry Ford Hospital, Detroit, Michigan.

Success in the use of chemotherapeutic agents in combating infectious diseases revived the hope that eventually a substance will be found that will be useful clinically in the treatment of tuberculosis. Promin, one of the compounds used experimentally, has already been discussed in the public press.—*Tuberculosis Abstracts,* June, 1942.

# Functional Chest Pain*

By Ben E. Goodrich, M.D.
and
John W. Keyes, M.D.
Detroit, Michigan

BEN E. GOODRICH, M.D.

*M.D., State University of Iowa College of Medicine, 1926. Associate Physician, Henry Ford Hospital. Diplomate, American Board of Internal Medicine. Member, American College of Physicians; American College of Chest Physicians; Michigan State Medical Society. Lieutenant Commander, U. S. Navy Medical Corps.*

JOHN W. KEYES, M.D.

*M.D., University of Illinois College of Medicine, 1936. Resident Physician in Cardiology, Henry Ford Hospital. Member, Michigan State Medical Society.*

■ IN recent years the public has become aware of the association of chest distress with serious heart disease. It is less generally understood that chest pain, of various types, may occur in the absence of organic cardiac abnormality. The incorrect interpretation of distress may result in unnecessary mental and physical invalidism.[10]

In this group of cases of chest distress several recognized conditions were intentionally omitted. Patients suffering the well known, but occasionally misinterpreted, pain and tenderness over the cardiac apex in advanced rheumatic or hypertensive heart disease were not included. Evident cervical arthritis when productive of chest or shoulder pain was also excluded. Scalenus anticus syndrome was omitted.[8] Periarthritis of the shoulder, which may occur with or without coronary artery disease, was excluded by local examination.[1,6] One malingering patient was omitted. Patients with slipped rib cartilage[5] or migraine of the chest were not recognized.[2] Herpes zoster did not occur during the period of the study.

The records of 227 patients who complained of chest distress were reviewed. All of these patients believed or had been advised their distress was due to heart disease. Organic disease was present in forty-three patients of whom twenty-seven were cases of coronary artery occlusion, one of dissecting aneurysm, and one of pericarditis in a young man. Of the remainder, four had spontaneous pneumothoraces, three had pulmonary infarctions, and there was one case each of acute fibrinous pleurisy, metastatic carcinoma and pneumonocele. Four patients presented an acute myositis. Nineteen patients were judged to be having referred pain. Nine of these were from gastro-intestinal disease, three from acute distress of radicular origin, and one from a traumatic diaphragmatic strain. Four patients had chest pain in association with acute bronchitis and two suffered prolonged attacks of substernal oppression in association with paroxysmal auricular tachycardia.

Thus of the total 227 patients, 165 (72 per cent) were experiencing distress of functional origin. In ninety-three patients (40.9 per cent) this distress was judged to be angina pectoris, a symptom requiring serious consideration and often resulting in considerable disability or death. Seventy-two patients (31 per cent) were judged to be distressed by symptoms of non-cardiac origin. It is necessary that equal care, time and ingenuity be expended on these patients. A physician, remembering previous unexpected disasters in patients not recognized as having serious heart disease, may be swayed toward a diagnosis of angina pectoris. This diagnosis, if not justified, will result in unnecessary mental anguish and economic loss. However, if the patient be experiencing cardio-neurotic distress and a correct interpretation is made, the therapeutic problem for the physician is no less difficult. A brief assurance to the patient, with no treatment for the distress, will not be adequate. A statement that nothing is wrong and that the patient is nervous will be most unsatisfactory. If medical shopping and a lessening of invalidism is to be achieved, responsibility must be assumed by a competent medical advisor. A longer acquaintance often increases confidence by both the patient and the physician, and the personal satisfaction derived is well worth the time and effort required.

CHEST PAIN

| | No. | Male | Fem ale | Per Cent of Total |
|---|---|---|---|---|
| Cardiovascular | | | | |
| Organic | 29 | 26 | 3 | 13 |
| Functional (Angina) | 93 | 70 | 23 | 41— |
| Non-Cardiac | | | | |
| Organic | 14 | | | |
| Referred | 19 | | | |
| Functional | 72 | 34 | 38 | 31+ |
| Total | 227 | | | |

*From the Department of Medicine, Henry Ford Hospital, Detroit, Michigan.

**The diagnosis of angina pectoris rests upon the interpretation of subjective sensations. It may be present without detectable heart disease. It is present in patients whose electrocardiograms are normal as well as in those whose electrocardiograms are abnormal. Not infrequently, a therapeutic trial of nitroglycerin or amyl-nitrite aids in arriving at a diagnosis. This symptom, regardless of the location of its onset, is seldom referred to the same root zone in the back, at least not until adjacent root zones anteriorly have been involved.[4] Hyperesthesia or deep tenderness are rather infrequent. Although the pain may have occurred repeatedly and have been associated with apprehension, its localization remains vague. Finger-point designation of the site of pain is unusual. Whatever the character of the pain, it recurs consistently with exertion.**

| | Angina Pectoris | Cardiac Neurosis | Psychoneurosis | Neuromuscular |
|---|---|---|---|---|
| Conviction of heart disease | Varies | ++++ | ++ | Slight |
| Duration of symptoms | | Years | Months | Days—weeks |
| Pain character | Many types | Dull "heartache" | Variable | Sharp |
| Location | Substernal | Lower left chest | Left chest | Bilateral scattered |
| Radiation | To adjacent root segments anteriorly | Segmental | Jumps and skips adjacent root zone segments | ? |
| Duration | Few seconds to minutes | Hours—days steady | Brief, recurring | Transient |
| Tenderness | 0 | Superficial ++++ Deep ++ | Superficial ++ Deep—rare | Not frequent |
| Produced by | Exertion Excitement Meals | Excitement | Activity Fatigue | Motion of trunk |

The remaining seventy-two cases of functional chest distress constitute 31 per cent of the total. The average age of these patients was 42.5 years. The sex distribution was about equal. Factors other than fear about the heart contributed to mental anxiety in the majority of the seventy-two patients.

In clinical practice evidences of neurotic tendencies were frequently noted. These included sighing respirations, absent gag reflex, and tremor of the tongue or eyelids. Reduced threshold for pain was often demonstrated. Globus hystericus was not an infrequent subjective sensation. In some patients a symptomatology similar to neuro-circulatory asthenia had previously caused concern regarding the heart. In women at the menopause a similar group of symptoms frequently preceded the development of chest pain.

In this group of seventy-two patients a number of cases were distinctly similar and easily recognized. The term cardiac neurosis has been used for this condition.[7]

In this classification, in a broad sense, cardiac neurosis is used to designate hypochondriasis—a type of psychoneurosis with fixation on the heart. Psychoneurosis refers to those patients of fundamental neurotic tendency in whom fear regarding the heart is one episode of recurring anxiety about their physical condition. These patients had previously had and will later have symptoms of neurogenic origin relating to other organs.

The accompanying chart is for the purpose of indicating in a general way the characteristics of the groups developed in this survey. The cardiac neuroses and the psychoneuroses occur in the same type of person and differ chiefly in duration and degree of symptoms.

### Cardiac Neurosis

Fourteen patients (19 per cent), presented characteristics of a well established cardiac neurosis.[7] These patients believed without doubt that heart disease was present. Symptoms had been present from one to six years. The character of

the distress varied widely, but in association with other sensations there was usually a steady dull "heartache" beneath the left breast. Radiation, if it occurred, included a distribution to the back at the angle of the left scapula or the lower interscapular area. This corresponded in location to the same root zone as the location of the distress anteriorly. Not infrequently, even when the patient had denied such radiation, upon examination with pressure on the area posteriorly the patient would then admit frequent radiation to this location. Both superficial and deep tenderness were elicited in these patients. The duration of part of the distress was often hours and at times days. Excitement, and other nervous factors precipitated the pain more frequently than did motion of the trunk or physical fatigue.

Two case histories are very briefly summarized.

*Case 1.*—Female, thirty-nine years, separated from husband four years. Given digitalis elsewhere. Pain in left chest with soreness and tenderness for one year. Functional dyspnea, globus, and palpitation, two to three days at a time. Electrocardiogram: T waves diphasic in Leads II and III. Diagnosis: no heart disease; cardiac neurosis. "This patient was previously considered to have serious heart disease and the question of life expectancy had been raised. Response to management was gratifying."

*Case 2.*—Female, forty-six years, housewife, recurring gall-bladder disease eight years ago. Confined to bed six years. Frequent "nervous spells"—colitis. Family strife. Reads medical literature. Symptoms confined to left side of body. "Weakness around the heart." Sharp stabs; precordial pain; aching left side of neck, twenty minutes' duration; fatigue causing patient to go to bed. Diagnosis: no heart disease; cardiac neurosis.

### Psychoneurosis

Thirteen of the seventy-two patients (18 per cent) presented distress of such widely varying character, location and radiation that general statements lack usefulness. The continued duration of symptoms was often less than in those with a cardiac neurosis. In several instances a resumption of symptoms occurred after months or years of freedom from pain. Not infrequently, it recurred soon after the relief of some other functional distress, such as nervous indigestion. The radiation was infrequently segmental and often skipped adjacent root segments anteriorly. Angina pectoris is also infrequently segmental, but radiates by involving adjacent root segments instead of jumping them. Deep tenderness was rare, and superficial tenderness less constantly severe. The immediate onset was often associated with unusual motion of the trunk or with *fatigue*.

*Case 3.*—Male, fifty-four years, insurance salesman. Fast heart in Army, 1918. Has wife count pulse. Reads encyclopedia. Crushing sensation to left of midsternum. Aching at the angle of the left scapula. Blood pressure 144/100. Split first tone apex. Diagnosis: no heart disease; psychoneurosis. "In this patient temporary recovery resulted from simple reassurance."

*Case 4.*—Male, fifty-two years, executive. Fatigue, lack of "pep." Eight weeks pressure left upper chest, fifteen minutes to one hour. Radiated to left axillæ. Not related to exertion. Blood pressure 90/60. Electrocardiogram elsewhere, on the basis of which he was advised absolute bed rest. Admitted after ten days at home. Basal metabolic rate minus 11 per cent. Blood pressure 94/56. Electrocardiogram: "T waves flat in lead I, low voltage T II and T III. Lead C. F. IV normal. No progressive change. Diagnosis: no heart disease, hypothyroidism possibly related. "Mild sedative, thyroid, and exercise program resulted in recovery."

### Neuromuscular

Forty-five patients (62 per cent) suffering chest pain of functional origin, could not be reasonably placed in either of these two groups. These miscellaneous cases are patients whose distress varied widely in location and duration. Consistency was absent. Such patients were less easily recognized than those with a cardiac fixation, or those with a history of recurring psychoneurotic disabilities. Often the patient, when the symptoms first occurred, had no idea that the heart might be responsible. Careless remarks of the initial professional advisor, types of medication given, or some tragic occurrence to a friend lead to a beginning concern regarding the heart. In general, successful management was more easily accomplished.

Considerable difficulty is encountered when cardio-neurotic distress occurs in a patient with organic heart disease.[9] The recognition of the non-cardiac origin of these disturbances may prevent unnecessary invalidism.

*Case 5.*—Female, forty-eight years, widow. Known rheumatic heart disease with mitral stenosis. Pains in the arms, precordium, and in the left scapular area described as numbness. Shaking sensations in the legs. Dizziness, palpitation, and dyspnea accompany. Duration five minutes to continual distress of several days' duration. Occurred over a three-year period. Had been

given digitalis several times and confined to bed on occasions. Only son unmarried. Symptoms recur whenever plans for his marriage are made. Diagnosis: rheumatic heart disease, mitral stenosis, Class I, functional capacity. "This disability was judged to be functional in character in a patient with organic heart disease."

*Case 6.*—Male, fifty-three years, Hebrew, owner dress shop. Choking in throat. Burning tongue. Faint sensations. Burning upper sternum. Onset with resumption of activity after inactivity. Duration ten minutes. Radiation left shoulder. Several times a day. Relieved by nitroglycerin. Electrocardiogram 1935 reproduced. Considered as having angina pectoris. Treatment, advice, reduction of obesity, partial success. Electrocardiogram unchanged over one year period.

Medical advice elsewhere 1936 to 1941. Under this management in 1937 suffered severe pain in the right chest, and fainted. Placed in oxygen two days. Electrocardiogram during and after remained the same as in 1935. Discharged after five days. In 1941, faintness, gurgling in throat, and pallor of a few minutes' duration. These two severe and additional mild attacks were preceded by nausea. They were followed by tachycardia of 110 to 130.

June 1941, again seen by the authors. A hyperactive carotid sinus reflex was present. Electrocardiogram reproduced. Rapid improvement in past four months under therapy which included elixir of phenobarbital, tincture of belladonna, ephedrine amytal capsules and small daily doses of thyroid substance.[3] Weight loss and increased exercise advised. Still suffers burning in tongue, aching left pectoral and angle of left scapula and numbness of thighs. He has resumed more business and physical activity than for the preceding eight years.

This case represents a patient who may have angina pectoris but whose chief disability has been of functional origin. The concern shown by each new physician, because of the abnormal electrocardiogram, has further handicapped the patient. The electrocardiogram has shown no change and is of the type rarely seen in young healthy persons.

When a conclusion has been reached that functional chest distress is present, with or without heart disease, the results of therapy are often successful.

## Treatment

*Of the Pain.*—Demonstration of local tenderness and its explanation. Local treatment by heat, massage, and surface applications. Liquid salicylates orally.

*Of the Patient.*—Mental. Explanation of the surety regarding the heart. Simplification of living. Sedation.

*Physical.*—Sleep. Exercise schedule. Mid-day rest. Thyroid if indicated.

In the few instances where used, the temporary relief of pain by the intradermal injection

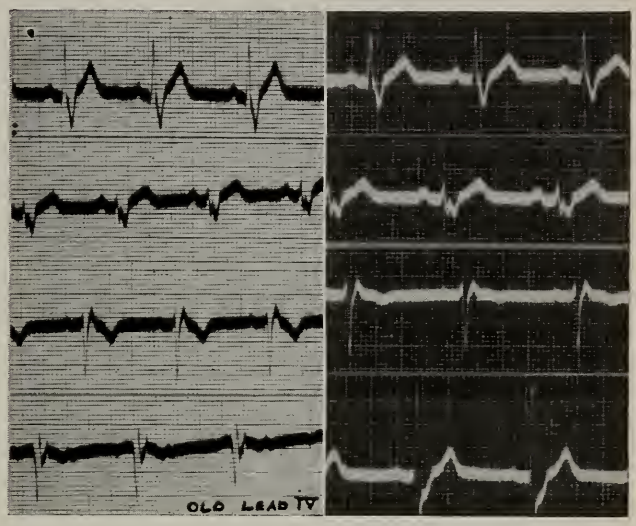


Fig. 1. Case 6. Showing very little change in the two curves taken at an interval of seven years (left, 1935; right, 1941). This is the type of bundle-branch block seen rarely in young healthy persons.

of novocain has not been of ultimate value. Patients with a deficient thyroid secretion often suffer muscular and soft tissue distress, which when present in some area of the numerous muscular and tendonous structures of the chest may suggest cardiac pain. Other than the simple measures above outlined, treatment is primarily an *individual matter,* requiring time and patience.

In recent years invalidism resulting from misinterpretation of chest pain has occurred with increasing frequency. In 227 consecutive patients suffering such distress, seventy-two (31 per cent) of the total were judged to be suffering distress of functional origin which was not related to the heart.

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# Acute Meningo-Encephalitis Treated with Sulfanilamide*

## Case Report

By Ralph L. Fisher, A.B., M.D., F.A.C.P.
and
Lyle E. Heavner, A.B., M.D.
Detroit, Michigan

RALPH L. FISHER, M.D.
*A.B., Duke University; M.D., Johns Hopkins Medical School. Member, American Heart Association; Fellow, American College of Physicians; Diplomate, American Board of Internal Medicine. In charge of the department of internal medicine at the Alexander Blain Hospital, Jefferson Clinic. Member, Michigan State Medical Society.*

LYLE E. HEAVNER, M.D.
*A.B., Wayne University; M.D., Wayne University School of Medicine. Associate member of the American College of Physicians. Internist in the department of internal medicine at the Alexander Blain Hospital, Jefferson Clinic. Member, Michigan State Medical Society.*

▪ VIRUS diseases in general have not been thought amenable to treatment with the sulfonamides. Animal experimentation with these drugs in certain of the virus diseases has been very limited and so far unsatisfactory, and a search of the literature fails to reveal any case of an encephalitis so treated in this country. Isolated cases have been reported in Germany and in South America. In the case reported here an acute meningo-encephalitis, probably of virus origin, seemingly responded to treatment with sulfanilamide.

### Case Report

An Italian-born woman, thirty years old, was first seen on April 4, 1939, complaining of a constant severe headache of two days' duration, dizziness, faintness and a sensation of fullness in the head. After taking a cathartic (magnesium sulphate) she had experienced two attacks of vomiting of normal gastric contents. There was no projectile vomiting at any time. No abnormalities were noted at this time in neurological or general examination, although her temperature was slightly elevated. During the next five days the patient's headache increased in intensity and was associated with nausea, vertigo, and marked flatulence. Her daily temperature ranged from normal to 101° and 102° F. Neurological examination continued to disclose no abnormalities until the day of admission.

The past history of the patient revealed that in 1927 she had undergone a salpingectomy elsewhere and a microscopic diagnosis of tuberculous salpingitis had been made. In 1931 she developed an abscess of the right forearm which was excised and drained. This healed spontaneously and was considered to be nontuberculous in origin. In 1933 a tonsillectomy was performed here and the tissues were examined for evidence of tuberculosis, but none was found. The patient's family history and marital history were without significance.

On April 9, eight days after onset of symptoms, the patient became acutely ill and was admitted to the hospital. Neurological findings which were now positive included a definite rigidity of the neck, an unsustained bilateral ankle clonus which was somewhat more marked in the right ankle, and Kernig's sign. Examination of the fundi, the eyes, and the deep and superficial reflexes yielded negative results. The Brudzinski reflex, Hoffman's, Babinski's and Oppenheim's signs could not be demonstrated. The heart, lungs and abdomen were normal. Blood pressure was 110 millimeters of mercury systolic and 80 millimeters of mercury diastolic. The value for hemoglobin was 85 per cent per 100 cubic centimeters of whole blood, the leukocytes numbering 15,000 per cubic millimeter of blood. Results of urinalysis were essentially negative.

Spinal puncture was made on the day of admission, and the patient's headache was temporarily alleviated by this procedure. The fluid obtained was clear, colorless and under slightly increased pressure, with a cell count of 224 per cubic millimeter, 90 per cent of which were lymphocytes. Globulin was slightly increased and the dextrose content was 49 milligrams. The Kline test was negative. Guinea pigs were innoculated with the serum obtained from this and subsequent lumbar punctures.

On the second hospital day the patient became apathetic and irrational, ate poorly, developed an intense thirst and still complained of headache of some intensity and a stiff neck. The headache was again relieved by lumbar puncture. The fluid obtained was clear, colorless and under slightly increased tension. The cells now numbered 230, 93 per cent of which were lymphocytes and 7 per cent polymorphonuclear leukocytes. Examination of the blood gave a value for hemoglobin of 80 per cent per 100 cubic centimeters of whole blood. There were 3,710,000 erythrocytes and 8,300 leukocytes per cubic millimeter of blood, having a differential of 70 per cent neutrophils and 30 per cent lymphocytes. Roentgenographic examination of the chest and skull revealed no abnormalities. A suggestive clonus persisted in the right ankle. The patellar reflexes were diminished in activity and reaction time, and Brudzinski's sign was now positive. In the belief that we were dealing with a form of meningitis, oral administration of sulfanilamide, in doses of 20 grains (1.5 grams) every four hours, was begun and was continued for ten days, when the dosage was decreased.

Signs of meningeal irritation subsided gradually. On the sixth hospital day the patient's temperature began a gradual return to normal, the neck was less rigid and the headache greatly diminished. On the ninth hospital day the neurological findings became negative

*From the Department of Internal Medicine, Alexander Blain Hospital, Detroit, Michigan.

and remained so. By the eleventh day the headache had ceased entirely and the neck soreness had disappeared. The patient remained mentally sluggish, however, during the greater part of her stay in the hospital. The original dose of 20 grains of sulfanilamide every four hours was decreased on the tenth day to 15 grains (1.28 grams) three times a day, and on the fourteenth day it was discontinued entirely. On this day the value for hemoglobin in the blood was 78 per cent per 100 cubic centimeters of whole blood. Erythrocytes numbered 3,650,000 and leukocytes 8,000 per cubic millimeter of blood, having a differential of 58 per cent polymorphonuclear leukocytes, 40 per cent lymphocytes and 2 per cent eosinophils. During the course of administration of sulfanilamide a complete blood count was made daily, and determination of sulfanilamide in the blood was kept around 10 milligrams per 100 cubic centimeters of whole blood. Not until the sulfanilamide was stopped on the fourteenth day did any significant toxic reaction occur. On the sixteenth day the number of leukocytes in the blood suddenly fell to 3,800 per cubic millimeter. On the seventeenth day the value for hemoglobin dropped to 66 per cent per 100 cubic centimeters of whole blood and suitable therapy was instituted. The mild leukopenia and secondary anemia subsided and gradually returned to normal. Blood cultures revealed no microörganisms.

Another lumbar puncture was done on April 28, the twentieth hospital day, the fluid obtained being clear, colorless and under normal pressure, with a cell count of 17 lymphocytes per cubic millimeter of fluid and 10 polymorphonuclear leukocytes. The patient's condition was now greatly improved, and on May 8, thirty days after admission, she was discharged. Her neurological responses at the time of discharge were normal and she was mentally alert.

No other members of the patient's household experienced clinical symptoms of any kind during the illness of the patient, and no clue was obtained as to a possible source of contact of the disease. Guinea pigs inoculated with each specimen of cerebrospinal fluid withdrawn were negative for tuberculosis. Blood drawn six months after onset of the illness was sent to the Rockefeller Institute and the National Institute of Health for determination of the presence of neutralizing antibodies against the virus of lymphocytic choriomeningitis. There was no evidence of the specific antibodies at that time. Periodical examination since discharge of the patient from the hospital has not revealed any sequelæ or clinical evidence of pathology.

## Discussion

In 1939 McKinley[3] and his co-workers reported their results with sulfanilamide, prontosil and sodium sulfanilyl sulfanilate in treating rabbits innoculated with several virus diseases, including herpetic encephalitis, choriomeningitis and St. Louis virus encephalitis. They concluded that none of the compounds was of any therapeutic value in the virus diseases studied and that the possibilities of successful chemotherapy in the virus diseases were not particularly encouraging. Sulfanilamide has, however, been suggested in human choriomeningitis. In 1940 Flexner[2] and his co-workers reported studies on the therapeutic effects of vitamin C, sulfanilamide and pitressin on herpes encephalitis in rabbits. Seven rabbits treated with sulfanilamide failed to show any alteration in the fatal course experienced in the other groups of virus infected animals. Two animals (28 per cent) gave no manifestation of paralysis. Morris and Murray,[4] however, reported successful treatment of meningo-encephalitis associated with canine distemper. Bär,[1] investigating some suspected virus diseases, obtained very satisfactory results in treating experimental venereal lymphogranuloma with certain of the sulfonamides. He concluded as a result of his work and that of other investigators that only in the aforementioned disease, in trachoma, and in certain symptoms produced by the Rickettsia group of organisms, has a noticeable therapeutic effect been obtained experimentally.

Wilhelm,[6] in 1938, reported a case of encephalitis, with recovery of the patient, in which intraspinal injections of prontosil were made. Savino[5] recently treated a patient sixty-seven years old, ill with meningo-encephalitis caused by the Listerella monocytogenes, with sulfapyridine and noted a favorable effect within twelve hours. The patient had been semi-comatose and regained mental faculties almost immediately after treatment. Treatment was continued for eight days and recovery was uneventful.

Meningo-encephalitis must be distinguished from "benign" lymphocytic choriomeningitis or lymphocytic meningitis, usually, but not always, benign. Our only means of differentiation in this case was the Rivers test for neutralizing antibodies and diagnostically eliminating other sources of infection.

## Conclusion

It would appear in this case that treatment with sulfanilamide had accomplished two things: (1) that the duration of the illness was shortened, and (2) that there were no crippling or debilitating sequelæ such as are often left in the wake of meningo-encephalitis. Whether or not

these results may be ascribed to the chemotherapy employed is debatable, but the clinical course of the disease would seem to have been greatly influenced by sulfanilamide therapy.

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MSMS

# Diagnosis of Cancer*


**By Henry J. Vanden Berg, M.D.**

**Grand Rapids, Michigan**

HENRY J. VANDEN BERG, M.D.

*M.D., University of Michigan, 1905. Chairman of the Executive Committee of the Michigan Division of the Field Army of the American Society for the Control of Cancer. Chairman for Michigan, American Society for the Control of Cancer. Member, Board of Directors of the American Society for the Control of Cancer. Fellow, American College of Surgeons. Member, American Association for the Study of Goiter; American Society for the Control of Cancer; Michigan Governing Committee of Gorgas Memorial Institute of Tropical and Preventive Medicine; Michigan State Medical Society.*


▪ THE diagnosis of cancer in its early curable stage is, I believe, too generally held to be difficult. Cancer may occur anywhere in the most out-of-the-way, deep-seated, hidden places, since any of the body cells may take on a malignant behavior of growth. Moreover there may not be any symptoms or signs to betray its presence, in which case the diagnosis of early cancer may be difficult or impossible. However, in the large majority of cancers, its presence is betrayed in the early stages with symptoms and signs. If this is so, and it is, it naturally follows that we should be thoroughly familiar with the early symptoms and signs, or they won't mean much to us; once we are, we begin to suspect cancer.

**To suspect cancer is the most important consideration in cancer diagnosis. When we reach that point, we have become cancer-conscious.**

The layman is being taught to recognize the early symptoms and signs of cancer, by means of the radio, magazine articles, health columns in the press and, more specifically, through the educational efforts of the Women's Field Army, a Division of the American Society for the Control of Cancer. As a result of this education of the public, cancer victims do come to us earlier. In this educational program, yearly examinations are also advised and even stressed, because *pre-cancer lesions or early cancers may at times be recognized by an alert physician before symptoms or signs of it appear.*

All of this imposes a greater responsibility upon us physicians and we must meet it; if the patient comes too late, we cannot be held responsible for the outcome; the best we can do in that case is to retard the growth, perhaps, and to alleviate suffering in one way or another, but if he comes early enough and the diagnosis is missed, it is costly. To the victim, it means that he pays with his life, and to us it follows that we physicians are criticized and discredited, and justly so.

The majority of cancers we meet are in the skin, the alimentary, the genito-urinary, and the respiratory tracts. Those in the skin and lip are, of course, in plain sight; those in the mouth nearly so. The ones that are deep-seated and hidden usually betray their presence in their early stages with symptoms and signs. These symptoms and signs will be experienced in one way or another in the tissue or organs in which the growth is located. Stomach cancer will cause stomach symptoms, loss of appetite and indigestion—not bladder symptoms. Early intestinal cancer will cause a change in the bowel habit, namely, constipation or increased constipation. Cancer of the rectum causes rectal irritation and increased frequency. A feeling of relief does not follow evacuation. Sooner or later blood and mucus appear. Cancers of the uterus and cervix and of the urinary tract will be betrayed by bleeding. Lung cancers usually betray their presence with a dry, hacking cough, deep-seated pain and bloody sputum. One needs to remember, then, that cancers in these common,

*Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society in Grand Rapids, September 19, 1941.

deep-seated locations produce changes in function of the organs in which they are located.

### Diagnostic Classification

To further simplify the problem of diagnosis, it is helpful to classify cancers into three groups.

*Group 1.*—Those openly visible to the patient and physician, as those in the skin, lip and mouth. Practically no one should die of cancer of the skin and lip because they are in plain sight, and those of the mouth are nearly in plain sight. Yet, between the two, there are nearly seven thousand deaths a year from them. It is only necessary to understand and realize that any blemish, thickening or ulceration of the skin, lip or mouth may be cancer. If it is cancer, it is just as much cancer in its early stage as when it is advanced. When such lesions are presented, it becomes our responsibility as physicians to take immediate steps to establish a diagnosis.

*Group 2.*—In this group can be placed those cancers that are not in plain sight, yet accessible to direct inspection or palpation, as, for example, those of the breast and rectum, and those in sight with the aid of simple office equipment, as, for example, the vaginal speculum. Lumps in the breast have to be definitely diagnosed. The common cervical erosion may be satisfactorily treated in the office by means of electro-coagulation, an important preventive measure. If malignancy is suspected, biopsy material must be obtained for examination. Growths in the rectum can be discovered with the examining finger. The proctoscope is a simple diagnostic instrument that can be used by anyone for visualization and obtaining biopsy specimens.

The average practitioner is not trained to examine the vocal cords or the larynx for suspected cancer, which one should suspect in the case of hoarseness that does not clear up in a week or two, but such a problem may be referred to the specialist who is everywhere available. These two groups, then, including cancer of the skin, mouth, larynx, breasts, cervix and rectum, comprise a large percentage of the total number of cancers we encounter. It is really simple up to this point to work out the diagnosis. One needs only to be visually and mentally alert, careful and painstaking in obtaining our histories and making physical examinations. Up to this point only the help of the pathologist is needed, perhaps the laryngologist, and in some cases, a consulting physician.

*Group 3.*—In this group some of the hidden cancers are really hidden, but again the majority of these are in the gastro-intestinal, genito-urinary and respiratory tracts and, fortunately, they usually give warning and danger signals, and there are helpful aids to establish a diagnosis. The roentgenologist aids in x-ray studies of the gastro-intestinal and urinary tracts. The gastroscopist is now also available with the gastroscope to directly visualize gastric lesions. The urologist with the cystoscope can view bladder lesions. The esophagoscopist, laryngoscopist and bronchoscopist can see lesions in the respective regions.

In mentioning the genital tract as being one of the systems in which the majority of cancers occur, the ovary, not an uncommon seat of malignancy, unfortunately does not disclose its presence with symptoms and signs in the early stages; when it does it may be hopelessly incurable. That, of course, applies equally to cancer of the breast, which does not produce symptoms in the early stages. The best protection afforded in the matter of cancer of the ovary is a yearly examination. Ovarian growths should be removed because a certain percentage is malignant, and, in the early stages, not incurable. In so far as breast cancer is concerned, women are advised to examine their own breasts and to report at once any lump they may feel.

In this group (3) more help is needed from the pathologist, roentgenologist, esophagoscopist, gastroscopist, bronchoscopist, the urologist, and perhaps again the experienced clinician.

### Cost of Carelessness

I want to cite a few cases to illustrate how costly it is if the symptoms and signs of cancer brought to us go unrecognized. The last two stomach cancer cases I have seen were given no chance for their life because of this.

*Case 1.*—A man, aged sixty-five, who had always had good digestion, began to have loss of appetite and dyspepsia, which he reported. Something was given him to sharpen his appetite and to correct his digestion. His symptoms did not improve. He was losing weight and strength. For three years this patient remained under the same physician's care. At the end of this three-year period the patient reported that he felt a bunch in the region of his stomach. An x-ray study was then ordered to be made by his physician and the patient was then sent to a surgeon. Upon examination, besides finding a large growth the size of a split grapefruit in the epigastrium, there were secondaries in the glands above the left clavicle. Needless to say, the pa-

tient was weak, emaciated and cachectic—perfectly hopeless.

*Case 2.*—A man, aged seventy, who reported the same early symptoms of cancer of the stomach to his physician, was told that he was anemic and that by correcting it his stomach symptoms would probably clear up. He got no better so he consulted a second physician after six months and the diagnosis of anemia was concurred in by this physician, who gave the patient what he called "liver shots." He thought he felt a little better for a while, but he continued to lose weight and strength and he became more anemic. A year and a half later he consulted a third physician, who had no trouble to make a diagnosis because the patient then presented a large, irregular liver. An x-ray study was made, which disclosed a large growth in the stomach. An x-ray study should have been made in these two cases when the trouble was first reported.

*Case 3.*—A woman, aged sixty-eight, reported a lump in her breast to her physician two years ago. She was told that it probably did not amount to anything, and he did not advise her to have a study of it made or to get another opinion. It was suggested that she report again in six months, which she did, and again she was not given good advice. Now, at the end of two years, she came in with an advanced, ulcerating, bleeding cancer of the breast. The patient did her part, yet she pays with her life.

*Case 4.*—A recent patient who came in with an advanced carcinoma of the rectum that had been proctoscoped shortly before he came in, was told that his rectum was negative. This was a case of just-going-through-the-motions. Nothing could be more unfair to the patient—and to the profession, as well.

*Case 5.*—A woman, aged fifty-five, consulted her physician because of hemorrhoids. These she had and a hemorrhoidectomy was advised and carried out. Six months later she came in with a rather advanced carcinoma of the rectum. The physician who operated her failed in getting a history of carcinoma of the rectum, which she gave, and he did not examine the rectum, as simple an examination as it is, requiring only the use of one's finger.

One could go on and on citing experiences of this kind, all of which go to show how poorly informed too many of us are in the understanding of the early symptoms and signs of cancer. As already stated, unless we are familiar with the early symptoms and signs of cancer, they mean nothing to us. The examination of our patients must mean something. We must not only cover the ground, but it must be done thoroughly, painstakingly, and with understanding.

This is important—one is not going to make thorough, painstaking physical examinations without adequate facilities for doing so. Many physicians have only one examining table, and that is oftentimes in the consulting room. They should have two or, better still, three examining rooms. That, of course, requires help, but without either or both it will be too troublesome to make examinations and there won't be time for it. The helper does not need to be a trained nurse. An intelligent girl can be trained to get patients ready and to help in the examination and to carry out some minor laboratory procedures besides looking after other things. One sees occasionally rather imposing, elaborate reception rooms with an able attendant in charge, giving the impression of "big business", but beyond these four walls the real work shop is woefully lacking in working facilities. With the same expenditure in such a case, a real and practical setup could be operative. A point is made of this because one hears it said that a helper and two or three examining rooms is prohibitive because of the cost of operation. Drive less expensive cars perhaps and cut corners on things less essential than the real heart of the work. In any case, it is best to keep it simple, but it must be adequate, or, to repeat, without good working facilities—it just won't be done.

## Summary

While the diagnosis of cancer in its early stages may be difficult or impossible, it is not too difficult in the large majority of cases, provided we are thoroughly familiar with the early symptoms and signs. If we are, we suspect cancer, the most important consideration in cancer diagnosis.

Be painstaking and thorough in obtaining histories and in making physical examinations. Adequate facilities and equipment are absolutely necessary for the examination of our patients, or it won't be done.

Cancer diagnosis calls for help—no one can do it alone—moreover no one can afford to assume the entire responsibility. Errors in diagnosis are too costly—first of all, of course, to the victim because he pays with his life, and then to us physicians who are proud. We feel injured when disgraced or criticized, which we are bound to be if we fail in meeting our responsibility, because cancer does not cure itself. Failures of diagnosis catch up with us.

Relatively few are trained or equipped to treat cancer but we, all of us, have to diagnose cancer. Diagnose cancer while it is still a problem. Do not wait until it is too easy.

## MSMS Foundation for Postgraduate Medical Education

Pursuant to the report of the MSMS Committee on Postgraduate Medical Education, and following instructions from the House of Delegates, the Executive Committee of The Council after exhaustive study empowered the President and Secretary of the State Society to sign the Trust Agreement creating the "Michigan State Medical Society Foundation for Postgraduate Medical Education" on June 18, 1942.

The scene of this culmination of fifteen years' consideration of the need for this Foundation was Detroit, where the Michigan State Medical Society was founded seventy-seven years ago.

The Trust Fund will be devoted entirely to the development of a greater Michigan Postgraduate Medical program. This action is so obviously in the public interest, it is believed it will be a stimulus to doctors of medicine and interested laymen in developing the Foundation which in time will redound to the benefit of the people of Michigan through an ever-increasing improvement in the quality of medical service in this State.

Henry R Carstens

President, Michigan State Medical Society

# President's Page

# EDITORIAL

## LISTENING AND LEARNING

■ Many physicians attending medical meetings listen to carefully prepared material, well delivered by able men on vital subjects, but fail to derive any great benefit. Too often it is because the practitioner goes to that meeting in a negative frame of mind. He listens more to find a statement he does not agree with, rather than to assimilate the useful information which is universally present, even though occasionally flooded by immaterial and unimportant statements.

**The most useful education is attained by an open mind continuously searching for items of information and different points of view.**

Most physicians are faced with the practical problems involved in their every day tasks and are prone to expect specific answers to specific problems which are facing them from day to day. If he attends a lecture with the expectation of having someone give him a clean cut solution to his particular problem he is doomed to disappointment. He should put himself in the speaker's position. How can the speaker possibly know the particular stumbling block which is confronting the individual practitioner? It would be necessary to have a personal consultation, furnishing to the instructor the history of the solitary case, and other necessary background, before the advice would be of any value. One should go to medical meetings seeking general information and particularly in quest of inspiration. When the speaker tells of his own difficulties and how he solved them; or he discusses other people's problems and how they were unraveled, the practitioner should be inspired to go back and to meet once again his own points to be solved with a better will and determination.

The committee in charge of the scientific program at any medical meeting is confronted by the question of whom they should ask to address the audience. If there are forty speakers on the program (as is usual in the MSMS Annual Convention) it is probable that not all will be exceptional speakers, or will have a paper interesting and worth while to each and every listener. If the physician is unfortunate enough to hear a poor speaker, or one who has a less expertly prepared subject, or a paper of no particular interest to him, he should be open minded enough to charge it up to profit and loss and not let it make him decide that listening to speeches is not worth while. If he were to give time (which might have been used for something else) to hear ten papers and only one of the ten papers given had a real message for him, all the time devoted to the other nine meetings could still be considered a good investment.

**Every physician should attend hospital staff, county society, state society, and other conferences, with an open mind, expecting always to find items of interest and information which would broaden his understanding and scope of knowledge. He should not come to them with a negative attitude.**

Too often the physician says: "I am not interested in this subject." "It does not pertain to my type of practice." "I would never treat a case of pneumonia, I am an otolaryngologist." "Reading an electrocardiogram is not of value to me in my specialty of urology." Perhaps he is right but the broadening effect of general medical education cannot help but improve the specialist in every field. Education can always be expanded and the mental processes stimulated. It is frequently difficult to associate the direct contribution to his ability to do his particular job but nevertheless occasionally he will find some apparently unrelated bit of knowledge or morsel of information of service in hitherto unsuspected ways, in his ordinary practice.

**Mental growth is stimulated by continued effort.**

MSMS

If you attend the Dermatology Section meeting at the Annual Convention of the MSMS in Grand Rapids in September you will have an opportunity to hear Eugene F. Traub, M.D., of New York, discuss skin cancers, their causes and treatment.

## OUTLINE OF GENERAL ASSEMBLY PROGRAM
### 77th Annual Meeting, Michigan State Medical Society
### Grand Rapids — September, 1942

| | Wednesday September 23, 1942 | Thursday September 24, 1942 | Friday September 25, 1942 |
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| *A.M.* 9:30 to 10:00 | General Practice<br>Harvey B. Matthews, M.D.<br>Brooklyn, N. Y. | Obstetrics (Maternal Health)<br>Philip F. Williams, M.D.<br>Philadelphia | ON THE EIGHT SECTION PROGRAMS<br>Medicine<br>J. B. Youmans, M.D., Nashville<br>Surgery<br>W. D. Gatch, M.D., Indianapolis<br>Obstetrics and Gynecology<br>W. C. Danforth, M.D., Evanston<br>Ophthalmology<br>P. A. Chandler, M.D., Boston<br>Pediatrics<br>Bronson Crothers, M.D., Boston<br>Dermatology<br>E. S. Traub, M.D., New York<br>Radiology, Pathology, Anesthesia<br>Edw. Skinner, M.D., Kansas City<br>General Practice<br>H. C. Guess, M.D., Buffalo |
| 10:00 to 10:30 | Surgery<br>Fred W. Rankin, M.D.<br>Lexington, Ky. | Medicine<br>Roy W. Scott, M.D.<br>Cleveland | |
| 10:30 to 11:00 | VIEW EXHIBITS | VIEW EXHIBITS | |
| 11:00 to 11:30 | Syphilology<br>J. Earl Moore, M.D.<br>Baltimore | Medicine<br>Irvine H. Page, M.D.<br>Indianapolis | |
| 11:30 to 12:00 | Gynecology<br>Geo. H. Gardner, M.D.<br>Chicago | Pediatrics<br>A. H. Parmelee, M.D.<br>Chicago | |
| *P.M.* 12:00 to 12:30 | Obstetrics<br>Philip F. Williams, M.D.<br>Philadelphia | General Practice<br>Elmer L. Sevringhaus, M.D.<br>Madison, Wis. | |
| 12:30 to 1:30 | LUNCHEON<br>VIEW EXHIBITS | LUNCHEON<br>VIEW EXHIBITS | LUNCHEON<br>VIEW EXHIBITS |
| 1:30 to 2:00 | Symposium on "Chemotherapy"<br>Medicine<br>H. F. Flippin, M.D.<br>Philadelphia | Ophthalmology<br>Meyer Wiener, M.D.<br>St. Louis | Otolaryngology<br>Geo. E. Shambaugh, Jr., M.D.<br>Chicago |
| 2:00 to 2:30 | Surgery<br>Russell D. Herrold, M.D.<br>Chicago | Pathology<br>E. T. Bell, M.D.<br>Minneapolis | Dermatology<br>L. A. Brunsting, M.D.<br>Rochester, Minn. |
| 2:30 to 3:00 | VIEW EXHIBITS | VIEW EXHIBITS | VIEW EXHIBITS |
| 3:00 to 3:30 | Pediatrics<br>John A. V. Davies, M.D.<br>Boston | Anesthesia<br>Paul M. Wood, M.D.<br>New York, N. Y. | Pediatrics (Child Welfare)<br>Clifford G. Grulee, M.D.<br>Evanston, Ill. |
| 3:30 to 4:30 | DISCUSSION CONFERENCES<br>with guest essayists | DISCUSSION CONFERENCES<br>with guest essayists | 3:30 to 4:00 — Medicine<br>J. Burns Amberson, M.D.<br>New York<br>4:00 to 4:30 — Surgery<br>Chas. B. Puestow, M.D.<br>Chicago |
| 8:30 to 10:00 | PRESIDENT'S NIGHT<br>Biddle Oration<br>Floor Show Dancing | SMOKER | END OF CONVENTION |

# Committee Reports

## ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1941-42

During the non-legislative year, your Legislative Committee held no meetings.

Two extra sessions of the Michigan Legislature were held in January and February of 1942. No proposal of particular interest to the medical profession was introduced in the first extra session, although a total of seventeen proposals was considered. In the second extra session, two bills were of special medical interest: (a) an amendment to the venereal disease control act, which granted wide powers in enforcement of sanitary laws, making it possible to effectively isolate, hospitalize and treat cases of known or suspected genito-infectious disease. This amendment to Act 328 of the Public Acts of 1931 was approved by the MSMS Syphilis Control Committee; (b) a bill to authorize the Michigan Department of Health to purchase and distribute biological products for use in the control of communicable diseases (Amendment to Act 105 of the Public Acts of 1927). Both of these proposals were passed by the Legislature, signed by the Governor and are now law.

The Committee developed plans for contact work before the 1942 elections. It also aided the American Medical Association in its efforts to clarify and eliminate ambiguous and objectionable provisions of proposed federal laws, and routinely followed the suggestions made in the AMA Legislative Bulletins. The Legislative Committee received prompt and courteous consideration at the hands of United States Senators and Congressmen from Michigan.

Your Legislative Committee again respectfully recommends that the Michigan State Board of Registration in Medicine be urged to seek necessary changes in the archaic Medical Practice Act from the 1943 Legislature, as one of the Board's major activities.

Finally your Legislative Committee stresses the continued need for frequent contact, before the 1942 elections, with each candidate for the Michigan Legislature and other State and county offices by members of the MSMS; particularly by the family physician of the office seeker. History proves that all types of ill-begotten legislation are attempted during wartime. Therefore, a greater responsibility than ever rests upon the officers and *individual members* of our county medical societies to continue their valuable contacts with candidates for and holders of public office. The most valuable contact is made by physicians back home, those who know the public official personally.

Respectfully submitted,

Harold A. Miller, M.D., *Chairman*
A. S. Brunk, M.D.
H. H. Cummings, M.D.
Lawrence Drolett, M.D.
T. K. Gruber, M.D.
Wm. S. Jones, M.D.
S. L. Loupee, M.D.
G. L. McClellan, M.D.
Harold Morris, M.D.
E. W. Schnoor, M.D.
O. D. Stryker, M.D.
R. V. Walker, M.D.

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## ANNUAL REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE, 1941-42

In the fall of 1941 The Council referred to the Committee for reconsideration and re-wording a resolution which had been offered at the 1941 AMA meeting. No other important matters came to the attention of the Committee and so no meetings were held until May 6, 1942. At this time the resolution in question was discussed in detail. On being advised that there might be a general practitioners' section of the American Medical Association which indicated a delegate from the general practitioners to the AMA House of Delegates, it was decided by the Committee to recommend to The MSMS Executive Committee that the resolution be referred to the Section on General Practitioners of the AMA for re-wording and re-introduction on the floor of the AMA House of Delegates.

Some minor correspondence to the Committee was handled efficiently by the Executive Secretary of the State Society.

In view of a proposed conference of governors of all states at which efforts would be inaugurated aiming toward unification of various state laws in order to facilitate federal regulations, and in view of the fact that it had been announced that the licensing of professional men would be included in the discussion, the Committee moved to have the Executive Secretary invite to the attention of the proper authorities the fact that any lowering of requirements in the field of medical licensure would be vigorously opposed in Michigan.

War conditions and the great changes being made in distribution of medical care have precluded any further consideration on the distribution of medical care by the Committee on that subject.

Respectfully submitted,

S. W. Hartwell, M.D., *Chairman*
A. F. Bliesmer, M.D.
T. S. Conover, M.D.
H. F. Dibble, M.D.
G. B. Saltonstall, M.D.
H. B. Zemmer, M.D.
Wm. P. Woodworth, M.D.

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## ANNUAL REPORT OF MSMS REPRESENTATIVES TO THE MICHIGAN JOINT COMMITTEE ON HEALTH EDUCATION, 1941-42

The Michigan Joint Committee on Health Education has continued its traditional activities on a somewhat lessened scale.

Some fifty speakers were sent out from the central office to lay audiences during the past year. This is a decrease in the number of assignments, and may be accounted for by the fact that this year organizations were asked to pay something towards expenses. Lessened income requires this, and indeed there seems to be no reason why there should be a distinction between lectures on medical subjects and other subjects which are handled by the Extension Division of the University.

We believe that we can stimulate the demand for health lectures. This year we were fearful that we could not carry through because of lessened finances, if we received the normal number of requests. This coming year we can safely promote this activity.

The *Detroit News Column* has continued, although the financial contribution of the Joint Committee to it has been limited. The Joint Committee funds have been used to send copies of this column to all health units in the state, and to about fifty of the smaller daily and weekly papers. This includes stenographic expense, mimeographing, material, etc.

There apparently is some difference of opinion as to the value of the radio project. Your chairman is confident that the radio outlets have a very sizable audience which is interested in health talks, and that this audience should be conserved and catered to to the best of our ability. The Joint Committee is prepared to furnish the mechanics for the Radio Com-

mittee, getting out the mimeographed copies, arranging for outlets, etc. Either the Joint Committee or the Radio Committee should again make a survey of the reception which has been given to the radio talks in this past year. Certainly there is no lessening of the need for the dissemination of factual health information to the laity.

We again invite your attention to the fact that the Committee has a sizable library of sound and silent films of excellent quality and character. It is not being used as much as it might be.

Respectfully submitted,

Burton R. Corbus, M.D., *Chairman*
L. W. Hull, M.D.
H. A. Luce, M.D.
F. J. O'Donnell, M.D.
W. R. Vaughan, M.D.

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## ANNUAL REPORT OF THE MEDICAL LEGAL COMMITTEE, 1941-42

Inasmuch as the activities of the Medical Legal Committee have been restricted to an advisory capacity only, since action was taken by the State Society to drop medical legal defense for members, no meetings have been held during the past year.

Several cases pending at the time medical defense was offered have been settled during the past year either by dismissal or suit. Attorneys' bills for services have been recommended for payment. There are several suits still pending. These suits were begun alleging that the actions justifying malpractice litigation occurred during the time members of the State Society were offered legal defense. Obviously no defense is being given when the alleged action occurred after Medical Defense was dropped.

Respectfully submitted,

S. W. Donaldson, M.D., *Chairman*
Don V. Hargrave, M.D.
R. R. Howlett, M.D.
Wm. J. Stapleton, Jr., M.D.

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## ANNUAL REPORT OF COMMITTEE ON PREVENTIVE MEDICINE, 1941-42

The Committee held three general meetings at which were cleared the activities of the numerous Advisory Committees. As was to be expected, the demands made for study and solution of numerous problems were far in excess of those of any previous year. Accordingly, a wide variety of subject matter was considered:

The Pneumonia Control Program of the State Department of Health was approved after careful study.

A Venereal Disease Prevention Program was formulated, and regulations for the organization and conduct of venereal disease welfare clinics were framed.

A survey of some 6,000 factories was made to ascertain the number of physicians essential in industrial practice.

The State-wide immunization program was broadened and accelerated, and problems of sanitation and public health regulation in the mushroom war production areas were vigorously attacked.

An Institute on Preventive Medicine is being planned this year on September 22. It will be presented under the auspices of the Advisory Committee on Heart & Degenerative Diseases with Lieut. Colonel Richard M. McKean as Chairman, and will cover the subject "Practice of Medicine in Total War." It is planned that henceforth, these Institutes will be presented in rotation annually by each of the Advisory Committees, emphasis being placed on the preventive aspects of the subject under discussion, with the attempt made to link the program with the courses in postgraduate medicine presented throughout the year.

Detailed reports of the activities of the various Advisory Committees are worthy of careful study. They indicate in no uncertain manner the sincere attempt made to render service to the public and the profession, while attesting but meagerly to the long hours of arduous effort contributed unselfishly by the members of these Committees.

Respectfully submitted,

Wm. S. Reveno, M.D., *Chairman*
J. D. Bruce, M.D.
B. R. Corbus, M.D.
Wm. A. Hyland, M.D.
M. R. Kinde, M.D.
H. A. Luce, M.D.
R. J. Mason, M.D.
R. M. McKean, M.D.
J. Duane Miller, M.D.
H. Allen Moyer, M.D.
Frank VanSchoick, M.D.
H. W. Wiley, M.D.
A. R. Woodburne, M.D.

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## ANNUAL REPORT OF CANCER COMMITTEE, 1941-42

1. Greater interest in Cancer education is constantly being shown by high school authorities throughout the State. Our committee believes that this interest should be stimulated and increased by both the schools and the State Department of Public Instruction. Therefore, a resolution was recently approved toward bringing Cancer Control facts to all high school and college students, as rapidly as personnel can be found for this work. This resolution was forwarded to the Director of the Michigan Department of Health, as well as to the Director of the Michigan Department of Education.

2. Several state medical societies have prepared and distributed to their members manuals for the diagnosis and treatment of Cancer, such manuals containing concise information on the major forms of cancer, more recent ideas of treatment, technique of biopsy, and the handling of the terminal or progressive cancer patient. An endeavor is being made in the case of the latter to relieve the discomfort of the patient without the promiscuous and excessive use of opiates and narcotic drugs that lead to the patient becoming an addict towards the termination of his life.

All the above section in the manual is being edited by the Committee, or one selected by the Committee, who is recognized as competent in his special field.

Manuals prepared by several states have been issued to members of the Committee for study and the incorporation of newer ideas in the subject assigned to the member. This manual should be brief as possible, while containing the necessary knowledge.

3. The Committee believes that speakers on the subject of Cancer Control should be selected from members of the Speakers' Bureau, appointed by the local medical society, which organization is in a better position to judge what type of speaker should be appointed for the various fraternal, social and luncheon clubs, or other organizations which desire a medical discussion in connection with the showing of the picture prepared by the Women's Field Army. With this in mind, the Cancer Committee will prepare an outline of material on Cancer in bulletin form for the convenience of the county medical society Speaker's Bureau. This will be a mimeographed bulletin of about 25 to 30 pages which will give the speaker sufficient data for an outline of his talk, and will be prepared under the direction of F. L. Rector, M.D., Field Representative in Cancer of the Michigan State Medical Society and the Michigan Department of Health.

4. The Cancer Committee, one year ago, was faced with the loss of its field representative by the call to Army Service of F. H. Power, M.D. We were

very fortunate in obtaining the services of F. L. Rector, M.D., who had been connected with the American Society for the Control of Cancer for a number of years. Dr. Rector's work has been somewhat different from our former Representative's, as he has assumed the position in regard to the profession as a discussant in the knowledge of cancer prevention as pertaining to laymen as well as physicians, rather than a diagnostic consultant in Cancer with the medical profession. In addition, H. Allen Moyer, M.D., Commissioner of the Michigan Department of Health, has been extremely coöperative with Dr. Rector, and at all times has been of the most help in furthering the combined work of the Michigan Department of Health and the Michigan State Medical Society in regard to cancer.

The pleasant relations of the three organizations, namely, the Michigan Department of Health, the Women's Field Army for Control of Cancer, and the Michigan State Medical Society have been most enjoyable, and the Chairman wishes to express his appreciation to Mrs. Wierengo, head of the Women's Field Army, Health Commissioner Moyer, Field Representative Rector, and members of the Cancer Control Committee of the Michigan State Medical Society for their advice and willing coöperation at all times, toward the success of our project.

Respectfully submitted,

Wm. A. Hyland, M.D., *Chairman*
John H. Cobane, M.D.
F. A. Coller, M.D.
W. G. Gamble, M.D.
C. K. Hasley, M.D.
A. B. McGraw, M.D.
Wm. R. Torgerson, M.D.
C. V. Weller, M.D.

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## ANNUAL REPORT OF MATERNAL HEALTH COMMITTEE, 1941-42

Your Committee held two meetings during the past year and considered the following matters:

1. Recommended publishing in the MSMS Journal the report of Practices and Facilities in Maternity Homes and Hospitals in Michigan.
2. Recommended that the authority for licensing of maternity homes and hospitals be the function of the State Department of Health, and that legislation to effect this matter be initiated in the 1943 session of the Legislature.
3. Recommended that the Maternal Health Committee be permitted by the MSMS Council to contact the Mary Elizabeth (Knudsen) Fund for financial assistance in the Committee's survey of maternal deaths in the state of Michigan.

Respectfully submitted,

H. W. Wiley, M.D., *Chairman*
D. C. Bloemendaal, M.D.
Max Burnell, M.D.
N. F. Miller, M.D.
H. A. Pearse, M.D.
W. F. Seeley, M.D.
Alex. M. Campbell, M.D. (Advisor).

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## ANNUAL REPORT OF SYPHILIS CONTROL COMMITTEE, 1941-42

Your Syphilis Control Committee has been extremely active this year (having held *five* meetings) and has considered many matters. The most important follow:

I. After investigation it was found that evidence of genito-infectious disease discovered during industrial examinations was not being adequately followed. This Committee therefore had two meetings with the Industrial Health Committee. At one of these meetings we obtained the technical assistance of David Elliott, Passed Assistant Surgeon, USPHS, and Walter Clark, M.D., and Thomas Storey, M.D., of the American Social Hygiene Association.

Following these discussions your Committee submitted a series of recommendations which were approved by The Executive Committee of The Council and were forwarded to the Commissioner of Health of the State of Michigan. These recommendations have been sent out from the office of the Commissioner of Health to those concerned in an effort to obtain better control of these cases.

II. A review has been made of Act 292 of 1937 (The Michigan Premarital Examination Law). In this study we have compared our law with that of several other states. U. J. Wile, M.D., lent us his invaluable help in this study.

During this study, F. J. Weber, Passed Assistant Surgeon, USPHS, gave us an excellent analytical study of the working of our law during the past four years.

From these studies two important changes have been recommended:

(a) A proposed amendment to the Premarital Examination Law has been submitted to The Executive Committee of The Council which has approved this and will recommend its passage at the next session of the Legislature. This amendment would provide for the marriage of proven pregnant women despite genito-infectious disease under certain circumstances.

(b) The Committee has received additional funds from the State Department of Health to augment those available for the control of genito-infectious diseases. These funds are being used to defray expenses of an Advisory Consultation Board to pass on cases requesting special certification for marriage licensure under our Premarital Examination Law. The State Commissioner of Health has appointed a number of these consultants and the work is now operating efficiently to the benefit of the applicants.

III. The Commissioner of Health early in the year asked your Committee to review and re-write the present report forms used in the reporting of genito-infectious disease. We compared our forms with those of other states and have re-written our form to comply with the best practice in other states and with the best principles of infectious disease control. These new forms are now in use throughout the state.

IV. Early in February the Commissioner of Health requested your Committee to re-write certain sections of Act 328 of Public Acts in 1931. Under this local health authorities could not effectively isolate, hospitalize or treat cases of known or suspected genito-infectious disease. This problem has become acute in some cantonment and defense areas. At two special meetings with representatives of the office of the Commissioner of Health this law was re-written, approved by the Executive Committee of The Council, submitted to and passed by the Second Extra Session of the Legislature in February, 1942.

V. The problem of selectees rejected or deferred because of genito-infectious disease was considered by your Committee. After study of the situation, corrective measures were recommended to the Executive Committee of The Council. These were approved and sent to Lt. Colonel H. A. Furlong, M.C., Medical Director of Selective Service in Michigan. Lt. Colonel Furlong approved our suggestions and new regulations were sent to Selective Service Boards covering the handling of the men so that we now hope that they will be adequately followed.

VI. With the large concentration of men in defense areas and cantonments we felt that the problem of prophylaxis against genito-infectious disease was one of major importance to the Nation. Your Committee has devoted a large part of three meetings to this problem and finally came to the conclusion that a statewide prophylaxis drive should be instituted. While the Committee feels that this problem would best be administered by Doctors of Medicine or authorized

prophylactic stations, this ideal has failed in performance and therefore we feel that drug stores represent our first line of approach.

The Executive Committee of The Council has approved our policy and we have obtained excellent support and advice from the Michigan State Pharmaceutical Association. Mr. J. H. Webster and Mr. Clarence Campbell representing the Pharmaceutical Association have met with us and have worked untiringly in solving some of our technical problems.

We have worked out a satisfactory inexpensive prophylactic kit to be dispensed by the neighboring drug store. To carry on the program we are now in the process of preparing a simple direction sheet to be supplied with the kit; also a clear, brief pamphlet to be furnished the druggist for distribution to those requesting information on genito-infectious disease, particularly with regard to safe and effective prophylactic procedures.

We feel that if we are able to establish this program on a state-wide basis, utilizing every drug store, we will be contributing a great deal to the defense effort as well as protecting many of our own nondefense citizens.

Respectfully submitted,

A. R. Woodburne, M.D., *Chairman*
Claud W. Behn, M.D.
R. S. Breakey, M.D.
Eugene Hand, M.D.
L. W. Shaffer, M.D.

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## ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE, 1941-42

The Tuberculosis Control Committee held one meeting during the year. At this meeting several problems relating to the field of tuberculosis were discussed.

In coöperation with the state health department an outline was developed for the general practitioner regarding the procedure to be followed by selectees who have been turned down by the Army because of tuberculosis or other chest conditions.

The Committee recommended that the Michigan State Medical Society support the State Health Department's case finding program in which miniature x-ray films are used in sparsely settled counties, colleges, and industrial plants.

A recommendation was made to the State Sanatorium Commission for the adjustment of tuberculosis rates in its two sanatoria.

The Committee developed a minimum outline of the procedure to be followed in tuberculosis case finding by the general practitioner. The plan is to have this outline published in the Journal.

The Committee developed a list of films and educational material available on the subject of tuberculosis, these to be used by medical societies and others interested in the education of the general public.

Respectfully submitted,

M. R. Kinde, M.D., *Chairman*
John Barnwell, M.D.
L. E. Holly, M.D.
W. L. Howard, M.D.
Willard B. Howes, M.D.
Bruce H. Douglas, M.D. (Advisor)

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## ANNUAL REPORT OF INDUSTRIAL HEALTH COMMITTEE, 1941-42

The first meeting of the Industrial Health Committee was held on September 17, 1941, in Grand Rapids, at which time members of the preceding committee were present as well as Chairman C. G. Burke, M.D., of the Oakland County Committee; Leon Sevey, M.D., of the Kent County Committee, and C. M. Peterson, M.D., and O. J. Johnson, M.D., of the American Medical Association. At this time, plans for promoting a program of examinations of employes for placement in industry, particularly plans for studies that were then being conducted by the Kent and Oakland County Committees, were discussed. It was decided to promote a physical examination program in small industries and to conduct studies to ascertain some information concerning the health of workmen in these smaller plants. The Committee also recommended to the Executive Committee of The Council that Dr. Johnson of the A.M.A. Council on Industrial Health be invited to conduct a survey of industrial practice in Michigan.

Following this invitation, Dr. Johnson of the A.M.A. conducted the survey, the report of which is now on file in the Lansing office of the Michigan State Medical Society. This report contains much interesting and valuable data which has been examined by your Committee and we recommend its examination by all those interested in industrial practice and regret that space does not permits its publication along with our report.

At a subsequent meeting on November 12, 1941, these plans concerning placement examinations were discussed further and it was decided to promote these studies. Your Chairman spoke before some of the smaller county societies in an attempt to interest them in placement examinations in the smaller plants throughout the State. Since the first of the year, it has been impossible to increase the scope of the physical examination program in small industries, on account of an increasing shortage of medical men in our communities.

Contact has been kept with the Michigan Industrial Hygiene Society throughout the year. Your Chairman attended three of these meetings and spoke at two of them.

The coding of a list of physicians interested in industrial work in the state of Michigan was requested by the A.M.A. This list was coded as well as possible for them.

Your Chairman and two members of the Committee attended the Congress on Industrial Health in Chicago, January 12 and 13, 1942, at which time a brief report was made of the Industrial Health program in Michigan.

The State Committee has coöperated with the Michigan Procurement & Assignment Committee office in obtaining for its use information concerning men in industrial practice. In this respect, we made a survey of industries in the state of Michigan comprising nearly 6,000 plants; from these concerns we obtained approximately 2,500 replies recording the name, age, position held and length of service of men engaged in industrial practice who are serving the industries of Michigan. This information is now available for the use of future committees on Industrial Health, also for the Bureau of Industrial Hygiene and the A.M.A., as well as for the Procurement and Assignment Service.

Respectfully submitted,

J. Duane Miller, M.D., *Chairman*
Henry Cook, M.D.
H. H. Gay, M.D.
K. E. Markuson, M.D.
Frank T. McCormick, M.D.
C. D. Selby, M.D.
Geo. VanRhee, M.D.

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## ANNUAL REPORT OF MENTAL HYGIENE COMMITTEE, 1941-42

This Committee has held one regular meeting and several informal ones throughout the year. The Committee has encouraged careful psychiatric examinations for the selectees under military service. Many local boards were unable to secure qualified psychiatric help. This is a reflection on the lack of qualifications in this field of the medical sciences.

Constant effort is being made by members of our

committee to develop a knowledge and awareness of mental and emotional disorders to the general profession. An effort has been made through the MSMS Committee on Postgraduate Medical Education and has brought some results but not to the amount that its importance justifies.

The Chairman of the Committee has attended all the meetings of the M.S.M.S. Preventive Medicine Committee and at these meetings has contributed wherever possible to the understanding of the mental aspects in a preventive medicine program.

Respectfully submitted,

HENRY A. LUCE, M.D., *Chairman*
R. G. BRAIN, M.D.
R. W. WAGGONER, M.D.
ARCH WALLS, M.D.
O. R. YODER, M.D.

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## ANNUAL REPORT OF CHILD WELFARE COMMITTEE, 1941-42

The Child Welfare Committee has had five regular meetings of the full Committee, three meetings of one sub-committee, and numerous conferences by individual members of the Committee. As was anticipated from the previous annual report, the problem of child health in war demanded most of the Committee's attention. However, a few items of unfinished business got first call, namely:

I. 1. The preparation of pamphlets or brochures on contagious diseases is continuing. These are to be distributed through regular health department outlets as the need arises in any one community.

2. Revision of recommendations on immunization procedures was done. These recommendations are sent to the parents of each newborn child by the Department of Health.

3. Compulsory immunization for diphtheria and smallpox before admission to school was thoroughly discussed. It was felt that the Jackson plan should be watched a little longer and more educational approaches should be made before any action is taken.

4. Recommended to the State Health Department and the State Legislature in session that the State Health Laboratories produce combined Tetanus and Diphtheria toxoid. Also that they should not limit their production to combined tetanus, diphtheria toxoid but should continue to produce diphtheria toxoid. Also the committee recommended the use of combined tetanus diphtheria toxoid to the physicians of the State.

5. The State Health Department's incubator program was discussed and commended. The Committee felt that the value of the incubator was to a large degree dependent upon the knowledge of the care of the premature. It recommended that the State Health Department employ a nurse who was well qualified to teach such procedures to the personnel of small hospitals. The State Health Department has employed such a person and her qualifications have been passed upon by the Committee.

6. The Committee acted as consultant to R. M. Kempton, M.D., who with a joint committee prepared a pamphlet entitled "School Health Policies."

7. Restated the policy of the M.S.M.S., the Department of Public Instruction, and the Parent-Teachers Association relative to preschool examination, to wit:—that whenever possible school and preschool examinations should be done in private physicians' offices.

II. The second phase of the Committee's activity was brought to a focal point by the following communication from the Chief of the Children's Bureau in Washington, under date of January 22, 1942:

"The wartime industrial and military program in the United States has brought about marked dislocations and new concentrations of population. Children must be protected against the danger of epidemics that are most likely to occur with these shifts in population. Since the problems which confront the country in the conduct of the war may involve the evacuation of children from cities, every possible preventive public health measure should now be employed, not only to protect those who may move but also to safeguard the communities into which many children may go.

"We recommend that a major effort be made at this time to secure the immediate immunization of 100 per cent of all children over nine months of age against diphtheria and smallpox. In addition, every state should consider the advisability of the immunization of children against typhoid, tetanus, and whooping cough.

"We ask that you give your immediate consideration to the use of existing unexpended balance of maternal and child-health funds now on hand in the State for such an immunization program. Budget amendments for this purpose, submitted to our regional medical consultants, will be given immediate consideration.

"It is hoped that your department, in coöperation with volunteers and other agencies, will have organized and completed this nationwide immunization campaign by May first, and that we should make this achievement our celebration of May Day—Child Health Day, 1942.

"Please let us know whether you will undertake this campaign in your State."

On February 8, the President's May Day proclamation was along the same lines.

It was estimated that 600,000 Michigan children would receive two injections of toxoid and one against smallpox, each. The State Laboratories were in no position to meet this load at once and therefore it was decided this should be a year-round campaign with special emphasis on May first as Child Health Day.

Following a detailed conference with officials of the State Health Department the following resolution was unanimously adopted:

WHEREAS, The Child Welfare Committee of the Michigan State Medical Society endorses a general program of childhood immunizations; and
WHEREAS, Such a program is always essential to the best welfare of children even in normal times; and
WHEREAS, Present defense activities occasion great shifts and congested concentrations in population, with resulting dislocation of normal activities and health safeguards; and
WHEREAS, In a number of Michigan communities, such health safeguards and necessary control measures have been disrupted, which may result in deadly epidemics unless preventive measures are effectively inaugurated and pursued at this time; therefore be it
RESOLVED, That the Child Welfare Committee of the Michigan State Medical Society recommends that a major effort be made in the present serious emergency to secure the immediate immunization of 100 per cent of all children over 9 months of age against diphtheria and smallpox, for the health and safety of our State.

Inasmuch as this was a matter of national defense, Lt. Col. H. A. Furlong, Medical Director, Office of Civilian Defense, was consulted and asked to coöperate. He offered many valuable suggestions and agreed to recommend the plan to local defense councils to be worked out according to the best local pattern.

As a matter of policy the Committee felt that

1. Each county medical society should determine its own method of procedure.
2. Private initiative should be pursued vigorously in getting the maximum number immunized in the private physician's office.

3. To this end adequate publicity and organization by the health departments was essential.
4. Complete records must be kept.
5. Compensation from the unexpended balance ($15,000) from the Maternal and Child Health funds should be "token" payments to the various county medical societies.
6. The Committee insisted that the actual work be done by physicians in their own offices so far as possible.

III. The third phase of the Committee's activity was a result of the following resolution which was passed December 11, 1941, and forwarded up through the regular channels of the M.S.M.S.:

"WHEREAS, the increased industrial activity in the production of war materials, together with the reduction or total stoppage of previously active peace industries, has brought about great and sudden shifts of population in the State of Michigan; and

"WHEREAS, such shifts in population have created congested areas with inadequate housing and lack of sanitary facilities; and

"WHEREAS, past experience has shown such conditions invariably breed epidemics of communicable diseases; and

"WHEREAS, the increased burden of supervision and control has taxed the local public health services to the utmost; and

"WHEREAS, there is great need for a uniform Code of Procedure in the prevention of epidemics and in the control of communicable disease in this State; therefore be it

"RESOLVED, That the Child Welfare Committee of the Michigan State Medical Society recommends that The Council of the M.S.M.S. request the State Department of Health to appoint a committee with the following purposes:

1. To carry on a study of the needs arising from the above-mentioned situation;
2. To draft a Uniform Code of Procedure for the prevention of epidemics and for the control of communicable disease;
3. To make every effort to communicate such Code to all interested parties, including physicians, local health officers, sanitary engineers, nurses, et cetera; and

"WHEREAS, this is a problem which calls for complete coöperation and coördination between a number of interested groups; therefore be it

"RESOLVED, That this Committee-to-be-appointed include representatives of the Michigan State Medical Society, the State Department of Health, the Michigan Branch of the A.A.P., the State Nursing Association, and the Department of Public Instruction, with the privilege of calling in for consultation or advice any or all persons or groups they may deem advisable or necessary."

As a result, H. A. Moyer, M.D., State Health Commissioner, appointed a committee of five: E. V. Thiehoff, M.D., Miss Lena Schermann, R.N., Mr. G. Robert Koopman, Edgar E. Martmer, M.D., and Frank VanSchoick, M.D.

This committee, at its first meeting, sat with the State Board of Health and helped make the final revision of the rules and regulations governing communicable disease control. At its next meeting at Ypsilanti, near the Ford Bomber Plant, it set up the machinery for health services in rural Wayne County. At its third meeting in Mt. Pleasant it attempted to do the same for Macomb County. Because of certain local conditions this activity is still pending.

The above short paragraph in no way represents the amount of work, effort and grief the members of this subcommittee were subjected to. Because the work is not completed and further details are uncertain, the Committee is unable to make additional comment at this time.

While the Child Welfare Committee is distinctly public health minded, it feels that it is the necessary duty of every private physician to actively coöperate and lead in preventive medicine activities in his community if he is to maintain the American system of medical practice in the modern plan of living.

Respectfully submitted,

FRANK VANSCHOICK, M.D., *Chairman*
W. C. C. COLE, M.D.
CAMPBELL HARVEY, M.D.
LEON DEVEL, M.D.
R. M. KEMPTON, M.D.
EDGAR MARTMER, M.D.
CHARLES F. MCKHANN, M.D.

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## ANNUAL REPORT OF IODIZED SALT COMMITTEE, 1941-42

This Committee held a joint meeting with the National Study Committee on Endemic Goiter of the American Public Health Association on January 17, 1942, in Detroit, Michigan. The transcription of this meeting is now in process of correction. It, together with the former one of the National Committee meeting of last year, will be placed in the files of this Society and should prove to be valuable papers upon the subject of the use of iodine as a prophylaxis of endemic goiter.

The present status of iodized salt is clearly set forth in the following resolution adopted for the purpose of giving to the Salt Producers Association an official statement from the two Study Committees.

1. From the knowledge of the excellent results obtained in the 1935 survey in the State of Michigan came the desire to have other states share the benefit of Michigan's experience through the services of a national organization, so consequently a Study Committee on Endemic Goiter was organized in and under the direction of the American Public Health Association. This Committee, together with the Michigan State Medical Society's Committee on Iodized Salt, offer the following recommendation:

"RESOLVED, That all salt for table use of human beings and salt used for feeding to domestic animals in the United States should contain one-hundredth of one per cent of potassium iodide or its equivalent, viz. forty-five milligrams of potassium iodide to each pound of salt, provided that an effective stabilizer be used."

Adopted by the Michigan Committee in May, 1940, and by the A.P.H.A. Study Committee in June, 1941.

2. From the laboratory studies at the University of Wisconsin has come the discovery and definition of a stabilizer which prevents the loss of iodine from the mixture of potassium iodide with salt. A stabilizer is an invaluable agent and its use permits the amount of potassium iodide to be reduced from two-hundredths as originally recommended to one-hundredth of one per cent.

3. From contact with the Federal Food and Drug Administration in Washington by both your Standardization Committee and the Study Committee, iodized salt has been defined and regulations governing its labeling have been promulgated under the Federal Food and Drug Act and published in the Federal Register of November 22, 1941. No therapeutic statement can be placed upon the label, which must show the percentages of all ingredients added to the salt.

4. From the Committee on Food and Nutrition of the National Research Council comes this action, passed July 26, 1941:

"Moved: That the Committee on Food and Nutrition of the National Research Council recommends

that general widespread use of iodized salt be encouraged; that all iodized salt be standardized for the present at a level of $.$1 per cent potassium iodide or its equivalent and that the manufacturers of iodized salt be urged to continue their coöperation in this voluntary contribution to the public health. Adopted."

"The Chairman was instructed to transmit this resolution to the Surgeon-General of the United States Public Health Service, who had requested advice from the Committee in this matter; also the Chairman was instructed to send this information to the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Coördinator of Health, Welfare, and Related Defense Activities." "(This recommendation has been transmitted as ordered—Dr. R. M. Wilder, Chairman.)"

This action of the Council has already been concurred in by both Study Committees.

"5. At a recent joint meeting of the Study Committee on Endemic Goiter of the A.P.H.A. and the Michigan State Medical Society's Committee on Iodized Salt, the following more comprehensive resolution as to their attitude was adopted:

"It is the unanimous opinion of this committee that the prevention of endemic goiter and its sequelæ, both in humans and in animals, can be approximated only by the addition of sufficient iodine to the salt used for food by humans and other animals."

"We would, therefore, recommend a joint study by medical organizations, public health officials, animal husbandry groups, and salt producers of the best way of extending the use of iodized salt as a method of iodine distribution."

"We especially recommend to salt producers to do all they can in regions deficient in iodine to extend the use of iodized salt for animal and human use."

The present problem before our State Committee is a historical compilation of the work and experience Michigan has had in the study of endemic goiter both by our State Society, our State Public Health Department, and by individual physicians.

Respectfully submitted,

Frederick B. Miner, M.D., *Chairman*
Thomas B. Cooley, M.D.
L. W. Gerstner, M.D.
David Levy, M.D.
R. D. McClure, M.D.
R. C. Moehlig, M.D.
H. A. Towsley, M.D.

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## ANNUAL REPORT OF COMMITTEE ON HEART AND DEGENERATIVE DISEASES, 1941-42

Due to current influences, the activities of this Committee have been fairly scant in the past year. One formal meeting was held on January 29, 1942, at which time the aims of this relatively new committee were discussed and it was decided that cardiology, peripheral vascular diseases, hypertension, nephritis, diabetes and like metabolic diseases, and the general subject of geriatrics were our major interests.

It was the sense of this meeting that since most of the emphasis had been placed on cardiology in the committee's first year, it should be our aim to concentrate on diabetes and peripheral vascular diseases which were being stressed in postgraduate sessions over the state. With this in view, it was the opinion of this group that a symposium on various fundamental aspects of Diabetes Mellitus should form the first "Institute on Preventive Medicine" to be given in Grand Rapids, September 22, the day before the beginning of the General Assembly program. The "Institute" had been suggested by this committee and its parent body, the Preventive Medicine Committee, and had been approved by the Executive Committee of The Council. A tentative plan was discussed and a sub-committee was instructed to draw up a final program.

At this same meeting, Maurice Meyers, M.D., was asked to draw up a brochure on the classification and management of peripheral vascular diseases to be presented to the Committee.

Since that time this latter has been postponed by Dr. Meyer's departure for military service. Also it was suggested in subsequent discussion among the Committee that the subject for the "Institute" be changed from that of "Diabetes Mellitus" to "Practice of Medicine in Total War." A tentative program to this end was decided upon, and the Preventive Medicine Committee and the Executive Committee of The Council approved this change in plans and the program as offered.

It is hoped that this first "Institute" will be a success and may be followed annually by other half-day programs of a similar nature. The Committee appreciates the ever present coöperation of The Council and of Wm. S. Reveno, M.D., and his Preventive Medicine Committee.

Respectfully submitted,

Richard M. McKean, M.D., *Chairman*
S. S. Altshuler, M.D.
B. B. Bushong, M.D.
M. S. Chambers, M.D.
John Littig, M.D.
M. P. Meyers, M.D.
E. D. Spalding, M.D.
H. H. Reicker, M.D. (Advisor)

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## ANNUAL REPORT OF RADIO COMMITTEE, 1941-42

During the broadcasting season, which extends from November through March, the M.S.M.S. radio talks were broadcast weekly from the following cities: Grand Rapids, Jackson, Lansing, Flint, Port Huron, Battle Creek, Bay City, Houghton, Kalamazoo, Muskegon, and Marquette.

The following subjects were given by doctors in these various cities:

Plastic Surgery
Skin Lesions and Their Relations to General Health
Marvels of Modern Surgery
Medicine and History
Stomach Trouble or Indigestion
Tuberculosis in the Children of Michigan
Foreign Bodies in the Lungs
The Clinical Significance of Impacted Teeth
Our Fight Against Infantile Paralysis
Disease of the Stomach
Influenza
Fall Health Hazards
Communicable Diseases Among School Children
Pneumonia
Health in National Defense
Sulfanilamide, Its Use in the Treatment of Blood Poisoning
War News from the Cancer Front
Sinusitis
Arthritis
Fat People
Common Misconceptions Regarding the Eyes.

These talks covering a fifteen-minute broadcast period had an opening and closing signature announcing it as a program of the Michigan State Medical Society.

*Comments*: Excellent coöperation has been obtained from Dr. C. A. Fisher of the University of Michigan Extension Bureau in securing and distributing scripts.

There seems to be a certain amount of lethargy on the part of some of the radio stations and the local county committees in presenting radio talks.

*Suggestions:* The Committee feels that didactic medical radio talks have passed their stage of usefulness and have lost their listener appeal. Unless a successful job in this specialized entertainment field can be done, the Society had best discontinue the present type of radio broadcasts.

The experience of the New York Medical Society with dramatized radio programs has been most successful, and also the series of dramatized programs under the heading "Magic in Medicine" presented by the Wayne County Medical Society, was likewise very successful. The New York Medical Society was on file a series of 13 broadcasts under the title "Doctors for Defense," which can be obtained for a sum of five dollars for the entire series. These scripts have been written by professional script writers and are very acceptable for broadcasts. This series might be presented by any local radio station properly equipped for dramatized programs, at which time electrical transcriptions could be made for distribution throughout the State. These programs have proved to develop and hold listener appeal.

Respectfully submitted,

R. J. Mason, M.D., *Chairman*
R. A. Burke, M.D.
E. A. Oakes, M.D.
G. C. Penberthy, M.D.
G. M. Waldie, M.D.

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## ANNUAL REPORT OF THE ETHICS COMMITTEE, 1941-42

The following questions were submitted to the committee during the past year:

1. *Question:* Should a doctor in private practice charge another doctor in the military service a full fee or any fee for medical services?
*Recommendation: No fee should be charged.*
2. *Question:* Blatant unethical advertising in two counties.
*Recommendation:* That a stern reprimand be given with the understanding that expulsion from the society would follow if reprimand not heeded.
3. *Question:* Several doctors in a certain county gave large gifts to the hospital to pay for private rooms, operating rooms, and special equipment. Is it unethical to place bronze plaques in the rooms with doctors' names upon them?
*Recommendation:* It is not unethical to place the bronze plaques in the rooms with doctors' names inscribed upon them.
4. *Question:* Should a doctor give medical, surgical or obstetrical care to a member of his family?
*Recommendation:* It is not advisable for a doctor to render such services to a member of his family, but it also is not prohibited.

No meetings of the committee were held during the year, all of the work being carried out by telephone and mail.

Respectfully submitted,

Clarence E. Toshach, M.D., *Chairman*
W. H. Alexander, M.D.
M. G. Becker, M.D.
F. M. Doyle, M.D.
Geo. B. Hoops, M.D.
J. J. McCann, M.D.
H. W. Porter, M.D.

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## ANNUAL REPORT OF COMMITTEE ON POST-GRADUATE MEDICAL EDUCATION, 1941-42

During the months of October, 1941, and April, 1942, the extramural practitioners' course was given in the centers of Saginaw-Bay City, Battle Creek-Kalamazoo, Flint, Lansing-Jackson, Mt. Clemens, Grand Rapids, Ann Arbor, and Cadillac-Traverse City. The subjects presented were:

**October, 1941**

The Modern Treatment of Fractures.
The Office Management of the Allergic Patient.
The Recognition and Prevention of Accidents of Pregnancy.
The Medical Complications of Pregnancy.
Emergency Drugs in General Practice.
The Office Management of the Diabetic.
The Diagnosis and Management of Cancer of the Gastro-intestinal Tract.

**April, 1942**

Approved New Methods and Drugs in Treatment of Medical and Surgical Conditions, with particular reference to present emergency. Panel discussion.
The Therapeutics of Whole Blood, Plasma and Serum.
Joint Pain and Its Treatment.
Peptic Ulcer. Panel discussion.
Estrogenic (steriod) Hormones.
Therapeutic Problems in Pediatrics.

The April program was divided equally between panel discussions and the formal lectures, and it was found that the panel discussions were very favorably received.

The teaching program recommended by your Committee and authorized by The Council for the Upper Peninsula was given during the week of May 25-30, at Sault Ste. Marie, Marquette, Houghton, Ironwood and Powers. All local arrangements were made by the Councillors and the county societies' officers. The presentations were given by a pediatrician, an obstetrician and gynecologist, a surgeon and an internist, as follows:

The Indications for and Selection of Sex Steroids.
An Explanation of the Newer Methods of Management of Heart Failure.
Office Surgical Procedures.
The Care of Accidents and Emergencies of the Newborn Period.
Panel discussion.

This has been one of our most successful undertakings. The meetings were well attended and the enthusiasm for a continuance of this contribution has been universal. Besides the reports from the Councilors there have been many letters of commendation from the membership of the Upper Peninsula, all expressing the hope that they may look forward to a similar contribution next year.

Intramural courses were given this year in anatomy, allergy, diseases of the blood and blood-forming organs, diseases of the heart, gastroenterology, electrocardiographic diagnosis, neuropsychiatry, nutritional and endocrine problems, obstetrics and gynecology, ophthalmology and otolaryngology, pediatrics, and roentgenology, as well as the short personal courses arranged on the basis of individual requirements. The registrations were as follows:

Extramural courses—October, 1941—April, 1942.

| | |
|---|---|
| Ann Arbor | 106 |
| Flint | 18 |
| Grand Rapids | 166 |
| Kalamazoo-Battle Creek | 138 |
| Lansing-Jackson | 162 |
| Mt. Clemens | 63 |
| Saginaw-Bay City | 162 |
| Traverse City-Cadillac | 102 |
| Upper Peninsula (S. S. Marie, Marquette, Houghton. Ironwood, Power) | 135 |
| | 1052 |

| | | |
|---|---|---|
| Intramural courses— | | |
| Allergy | 9 | |
| Anatomy | 35 | |
| Diseases of Blood and Blood-Forming Organs | 18 | |
| Diseases of the Heart | 16 | |
| Electrocardiographic Diagnosis | 40 | |
| Gastroenterology | 23 | |
| Neuropsychiatry | 9 | |
| Nutritional and Endocrine Problems | 39 | |
| Obstetrics and Gynecology | 9 | |
| Ophthalmology and Otolaryngology | 51 | |
| Pediatrics | 6 | |
| Personal Courses | 116 | |
| Roentgenology | 27 | 431 |
| Summer Session (1941) | 33 | |
| | | 1483 |

(Registrations at Continuation School of Wayne County .....150
Registration at Ingham County Medical Society Clinic, May 7, 1942...216)

On account of the large number of the profession going into active military service and the added duties of those remaining at home, involving as it will both teaching personnel and those usually found in attendance, considerable thought has been given by your Committee to reducing to a minimum the number of meetings of all kinds, while still preserving so far as possible their essential value. The suggestion of The Council's County Societies' Committee of two years ago for one-day concentrated program to replace our present four-day semi-annual program was again reviewed. It was decided that an attempt should be made to condense the four-day program, which has been functioning so successfully, into two days for at least the present year, the feeling being that it would be more convenient for the practitioner to attend a part of two days rather than give up one entire day from practice, which would be necessary if the suggestion of The Council's County Societies' Committee was followed. This compromise was unanimously agreed to by the Committee. The hours for the presentations in the various centers will be selected, as usual, by the local groups.

Your Committee invites attention to the importance of the postgraduate teaching program for the coming year. Medical service to the State will have to be supplied in increasing degree by the older physicians, many of whom will require some means of renewing their knowledge on the advances and recent techniques in practice without absenting themselves for long periods from their communities. It is also essential that the organization that has been built up over the years be maintained so that it will be ready to meet the needs of the doctors returning from military service whose opportunities for professional advancement during this period will in most instances be much less adequate than those afforded by the Michigan program.

It is now fifteen years since The Council of this Society invited the representatives of both our medical schools to confer with it on ways and means for the development of a program of postgraduate education for our profession. The Council and the representatives of both medical schools agreed that this would best be accomplished through a centralization of direction and a decentralization of teaching activities. That this plan has served well the professional interests of the State is evidenced by the continued attendance of a greater percentage of its members on its programs than that of any other state of which we have knowledge. It is not unfair also to assume that the marked improvement in local society and hospital programs has been influenced by our out-state plan of teaching as well as by those national boards and organizations which have contributed so effectively to hospital staff activities. Furthermore, is it unfair to assume that the excellent postgraduate programs and conferences developed notably in Wayne and Ingham counties have been influenced by the successful operation of the Michigan State Medical Society program over the last decade and a half. And finally, may we not properly feel some satisfaction in the regard in which this program is held by all our sister states and emulated by many.

Respectfully submitted,

James D. Bruce, M.D., *Chairman*
A. P. Biddle, M.D.
H. H. Cummings, M.D.
Douglas Donald, M.D.
W. B. Fillinger, M.D.
Henry A. Luce, M.D.
C. L. Hess, M.D.
Edgar H. Norris, M.D.
Ralph H. Pino, M.D.
D. C. Stephens, M.D.
Wm. E. Tew, M.D.
J. J. Walch, M.D.

## REPORT OF PUBLIC RELATIONS COMMITTEE, 1941-42

Due to the call to Military Service, the Chairman of the Public Relations Committee is submitting to the Executive Committee of The Council the Annual Report for 1941-42.

Shortly after the Declaration of War by our Nation against the Axis Powers the various inter-related committees of the Michigan State Medical Society took on increased activities in Medical Preparedness, Procurement and Assignment of Physicians, and Civilian Defense. It immediately became the chief function of the Public Relations Committee to integrate and publicize these activities to the County Medical Societies.

The Public Relations Committee held a meeting in Lansing, January 25, the evening before the Annual County Secretaries' Conference, at which there was a full discussion of Medical Preparedness, Michigan Medical Service, Problems of Medical Welfare, Ethics, County Health Units, and other related subjects. Soon after this meeting the Secretary of the M.S.M.S. sent a letter to each County Society inviting it to request speakers from the Public Relations Committee to address the society on the subject of Medical Preparedness, Procurement & Assignment of Physicians, and Civilian Defense.

The sixteen Councilor Districts were allocated, according to proximity, to the various committee members who responded to the requests for speakers. The call for speakers of every County Society was answered and fulfilled.

A total of twenty-eight meetings were addressed throughout the State. The average attendance at the meetings was forty to fifty, except in the smaller County Societies, where it was ten to twenty. Talks were given to the following County Societies: Calhoun, Kalamazoo, St. Joseph, Van Buren, Berrien, Bay, Saginaw, Alpena-Alcona-Presque Isle, Dickinson-Iron, Houghton, Ontonagon, Gogebic, Sanilac, Jackson, Genesee, Hillsdale, Ingham, Delta-Schoolcraft, Luce, Kent, Oceana, Mason, Manistee, Ionia-Montcalm and Allegan. In addition talks were given to the Southwestern Society of Michigan State Health Officers, the Medical Society of North Central Counties, and the Council of the Wayne County Medical Society.

The interest shown in each of these meetings was well worth the efforts of traveling through snowdrifts and over icy pavements to reach the meeting places. The Chairman of the Public Relations Committee wishes to thank each and every committee member for his loyal coöperation and valuable assistance in making the work of the Committee so successful this year. This opportunity is also taken to express appreciation to L. Fernald Foster, M.D., Mr. William J. Burns and Mr. Lynn Leet of the Executive Offices of the M.S.M.S. for their kind and helpful assistance.

When the Chairman of the Public Relations Commit-

tee is restored to civilian life after doing his bit to win the War, he hopes once more to be given the privilege of association with the Public Relations Committee of the M.S.M.S.

Respectfully submitted,

Harrison S. Collisi, M.D., *Chairman*
A. E. Catherwood, M.D.
C. G. Clippert, M.D.
John S. DeTar, M.D.
H. C. Hill, M.D.
A. H. Miller, M.D.
Fred Reed, M.D.
D. R. Smith, M.D.
A. W. Strom, M.D.

## ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY, 1941-42

During the past year, no subjects regarding the Auxiliary were brought to this Committee that could not be handled by correspondence—hence no meetings were called.

It is not to be inferred from this that the Auxiliary has not been active. The reverse is true.

It is with pleasure that this Committee takes note that Michigan's Auxiliary of 1,257 members is an active, live, and a growing organization — interesting itself in activities concerned with health and the public welfare.

The national program—outlined by the Woman's Auxiliary to the A.M.A.—was faithfully carried out, and in addition the following state activities have been accomplished:

1. Hospital Insurance for Physicians' Widows (individual contracts).
2. Set up a Student Loan Fund and provided for its administration—available to the children of living or deceased members of the M.S.M.S. during their third and fourth years in Class "A" medical schools.
3. Organized three new counties.
4. Publication of a State Bulletin.
5. Sponsoring jointly with the Michigan Tuberculosis Association a High School Radio Contest under plans outlined by the Tuberculosis Association.

Respectfully submitted,

A. V. Wenger, M.D., *Chairman*
C. W. Brainard, M.D.
G. F. Fisher, M.D.
L. C. Harvie, M.D.
Wm. S. Jones, M.D.
R. F. Salot, M.D.

## REPORT OF REPRESENTATIVES TO THE CONFERENCE COMMITTEE ON PRELICENSURE MEDICAL EDUCATION, 1941-42

The Conference Committee on Prelicensure Medical Education has had but one meeting. At this meeting it invited representatives of the different hospitals of the state to meet with it. Twenty hospitals were represented, several of them sending more than one representative, to a total of twenty-seven.

The chairman explained that the meeting was called for a discussion of the following subjects:

1. A plan designed to improve the quality of intern teaching through a standardization of curricula.
2. Resident training with a view of collaboration with our two medical schools.
3. For a general consideration of the intern problem from the standpoint of the hospital, its staff, and the fifth-year student.

A quite fruitful discussion ensued on various phases of intern education.

It has seemed to your Committee that it is both proper and advisable that the M.S.M.S. Committee on Postgraduate Medical Education assume a degree of responsibility for intern instruction in the nonaffiliated hospitals. This has met with the approval of The Council and the Postgraduate Committee. The latter Committee is now at work on the first step, that of providing a curricula. The curricula will be worked out after consultation and collaboration with representatives of the two medical schools. Those who may be interested in seeing some further comments on this plan will find them in an article by your chairman, entitled, "The Relation of Postgraduate Committees to Intern Instruction in Unaffiliated Hospitals. Should the State Society Assume Any Responsibility for Such Intern Instruction?", published in the May issue of The Journal of the Michigan State Medical Society. Incidentally, the article has elicited considerable interest in other states, indicating the interest in this pioneer work. The plan is a log cal development of our postgraduate activity. It means that the State Society accepts responsibility for postgraduate education from the time the student graduates until he ceases to practice.

It is clear thtat the war situation will delay the operation of any plan which may be devised, but we believe that at the end of this period there will be a very special need for help and advice, and we want to be prepared to furnish it.

The chairman has attended meetings of the Postgraduate Committee in the furtherance of this plan from time to time.

Respectfully submitted,

Burton R. Corbus, M.D., *Chairman*
L. Fernald Foster, M.D.
J. M. Robb, M.D.

## ANNUAL REPORT OF COMMITTEE ON NURSES TRAINING SCHOOLS, 1941-42

This Committee sent out fifty-two letters to the smaller hospitals in the State asking their reaction to the nursing situation in their communities. The letters that were received indicated first, that there exists a very acute shortage of good nursing care in this State, and second, that the State Board of Registration for Nurses has made feeble and ineffective efforts to remedy this situation.

This Committee feels that provision should be made for the establishment of Schools for Trained Attendants in the smaller communities where regular nursing schools cannot be established, and that these be so governed that at the completion of the basic year of training the Trained Attendant be obliged to complete a further term of six to twelve months in the same hospital, at a salary to be agreed upon. This would eliminate the present situation of having untrained girls caring for patients.

This Committee likewise recommends that pressure be brought to bear on the State Board of Registration for Nurses through the Legislative Committee and through the Governor, bringing to his attention their continued refusal to recognize the true situation, and endeavor to induce them to coöperate in the establishment and maintenance of the above-mentioned schools.

Respectfully submitted,

Ellery A. Oakes, M.D., *Chairman*
I. W. Greene, M.D.
G. F. Fisher, M.D.
Edw. Meisel, M.D.
A. E. Stickley, M.D.
D. W. Thorup, M.D.

## ANNUAL REPORT OF BEAUMONT MEMORIAL COMMITTEE, 1941-42

Due to the press of new problems that have confronted us this year, this Committee has not held a meeting and no new actions have been undertaken. Consequently, the status of action is exactly as it was in the last report.

Respectfully submitted,

Frederick A. Coller, M.D., *Chairman*
Henry R. Carstens, M.D.
H. H. Cummings, M.D.
A. C. Furstenberg, M.D.
Allan McDonald, M.D.
Lawrence Reynolds, M.D.

# ✶ YOU AND YOUR BUSINESS ✶

## SUSPICIOUS CASES OF POLIO

A number of cases of poliomyelitis might well be avoided if the cases were diagnosed in their very early stages and proper steps were taken. This might cut down the number of dangerous contacts.

During the approaching season when the disease is most likely to occur, each physician's attention is invited to the need for early consultation, should a suspicious case of poliomyelitis arise in his practice. Where the family is financially unable to provide this consultation service, compensation therefor will be paid from Afflicted-Crippled Child funds or by county Chapters of the National Foundation for Infantile Paralysis, after proper authorization and approval.

Do not delay in reporting suspicious cases of poliomyelitis and in seeking consultation. To secure consultation service in an indigent family, notify the secretary of your county medical society who will telegraph collect the Michigan Crippled Children Commission, 458 Hollister Building, Lansing (telephone 4-3716), or will contact the county or district Chapter of the National Foundation for Infantile Paralysis for authorization. Where possible, a consultant of the physician's choice will be supplied if his name appears on the approved list.

**— Buy More War Bonds —**

## THE FUNCTIONS OF PROCUREMENT AND ASSIGNMENT SERVICE

Procurement and Assignment Service, a professional agency created by the President upon the recommendation of the medical profession, has the following functions:

1. To procure knowledge concerning physicians and to assign them when requisitioned by the Army or Navy or other governmental agencies;

   P. and A. Service does not grant commissions, but it aids the definite objective ahead of all of us—the winning of this war—by helping to meet the immediate needs of the armed forces of the United States.
2. To locate doctors of medicine in the positions in which they would be best fitted to render service, either in military, or naval, or care of civilian populations, or in essential industry.
3. Assure the Army and Navy that it procures physicians of ethical standing and integrity.
4. Make certain that physicians receive commissions in Army and Navy, and are not drafted as privates with a loss of their valuable technical and scientific knowledge to the Service.
5. Assure that essential men in certain key positions are retained.
6. Ward against the depletion of medical service in the various communities of the State.

**— Buy More War Bonds —**

## MALINGERING

"Malingering with regard to injuries has been so prevalent that it behooves both the legal and medical profession to seek a more thorough understanding of the symptoms generally feigned as well as of certain diagnostic points, the presence or absence of which will either prove or disprove the allegations.

"The malingerer is costing American industry more than one and one-half million dollars annually, therefore it is expedient that the industrial physician acquaint himself as extensively as possible with the various angles of medical jurisprudence, and with as many of the ruses resorted to by the malingerer, as possible."—*J. R. Garner, M.D., A. J. Med. Jurispr.—March-April, 1939.*

**— Buy More War Bonds —**

## MEDICAL RECRUITING BOARD PROCEDURE

The procedure of the Medical Recruiting Board of Michigan, as outlined by Lt. Colonel John G. Slevin, MC, is as follows:

1. Physican applies to Medical Recruiting Board of Michigan; application taken.
2. The Procurement and Assignment clearance papers are prepared and forwarded to the Procurement and Assignment Committee of Michigan.
3. Physician goes for physical examination.

4. Physician returns on appointed date to obtain commission and take oath of office, or be rejected for any type of military service; (commission is only granted with a clearance from the Procurement & Assignment Committee).
5. Following granting of commission:
   (a) Selective Service is notified;
   (b) P. and A. is notified;
   (c) A file is forwarded to the Surgeon General.
6. In case of rejection either for physical disability or for reason of being essential, the following procedure is followed:
   (a) P. and A. is notified;
   (b) Selective Service is notified;
   (c) The physician himself is notified;
   (d) Part Three of the Availability Clearance Form, P. and A. is forwarded to the Surgeon General.
   Physician is allowed two weeks following the taking of oath of office before he is subject to call for active duty in the Army. This period may be extended for good and sufficient reasons up to an additional two weeks.

**— Buy More War Bonds —**

## OBSTETRICAL FEE IN CRIPPLED-AFFLICTED CHILD CASES

The Michigan Crippled Children Commission, on May 1, gave consideration to various changes in the schedule of benefits for medical care of Afflicted and Crippled Children. The only revision made by the Commission was the fee for obstetrics which was set at $25.00 on and after July 1, 1942.

It was understood that this fee represents a discount of approximately 50 per cent of the normal fee, which is voluntarily offered by Michigan physicians for care of wards of the State.

Doctors are requested to change their printed fee schedules in accordance with this revision made by the Commission.

## AFFILIATE FELLOWS OF A.M.A.

At the Atlantic City meeting in June, 1942, the AMA House of Delegates honored nineteen Michigan physicians with Affiliate Fellowship.

These doctors of medicine, all of whom are Members Emeritus of the Michigan State Medical Society, are: Charles D. Aaron, M.D., Detroit; Andrew P. Biddle, M.D., Detroit; D. M. Campbell, M.D., Detroit; George E. Frothingham, M.D., Detroit; W. L. Godfrey, M.D., Battle Creek; A. M. Hume, M.D., Owosso; John H. Kellogg, M.D., Battle Creek; Abraham Leenhouts, M.D., Holland; Donald K. MacQueen, M.D., Laurium; Wm. C. Martin, M.D., Detroit; S. G. Miner, M.D., Detroit; Walter R. Parker, M.D., Detroit; G. L. Renaud, M.D., Detroit; A. J. Roberts, M.D., Jackson; Edward Sawbridge, M.D., Stephenson; R. H. Stevens, M.D., Detroit; A. B. Thompson, M.D., Grand Rapids; J. E. G. Waddington, M.D., Detroit; and J. A. Wessinger, M.D., Ann Arbor.

# IN MEMORIAM

**Norman McLeod Allen,** of Detroit, was born in Calumet, Michigan, on April 11, 1883. He attended Ferris Institute at Big Rapids, Michigan, entered Detroit College of Medicine and Surgery in September, 1906, and was graduated therefrom in 1910. He served a two-year internship at Harper Hospital, and in 1912 became associated with the late Max Ballin, M.D. Doctor Allen was a member of the staff of Harper Hospital, and was an able, skillful surgeon. He died on May 9, 1942.

**Glenn Grieve,** of Big Rapids, was born in Coopersville, Michigan, in 1879, and was graduated from the University of Michigan Medical School in 1918. He located in Big Rapids and remained there until the time of his death. Doctor Grieve was active in many civic organizations and was chairman of the county draft board until his recent resignation due to illness. He was on the staff of Community Hospital since its organization. He had served as president of the Mecosta-Osceola County Medical Society and was secretary at the time of his death. Dr. Grieve died May 6, 1942.

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## 15,000 EXAMINED IN TEXAS

Fifteen thousand Mexican laborers who applied for work in Michigan's sugar beet fields were recently examined for tuberculosis in Texas by the Michigan Department of Health.

This is the fourth year the examinations have been carried on in Texas by the Department and in those four years, 32,000 fluoroscopic examinations were made. Those persons found to have tuberculosis were refused employment. This year 204 were rejected, bringing to 603 the total number of tuberculous patients who have not been permitted to come to Michigan to work in the beet fields.

As in the past, the examinations were made in coöperation with an association of Michigan beet growers and processors. Examination centers were established in San Antonio and Dallas with the help of the Texas State Department of Health, the city health departments of San Antonio and Dallas and the Bexar and Dallas county health departments.

## WAR COMPLICATES TYPHOID CARRIER CONTROL

Closer check of Michigan's 271 known chronic typhoid carriers is a wartime problem of the Michigan Department of Health. Wartime conditions are returning many of these persons to payrolls and are influencing changes of residence.

Typhoid carriers are required to notify local health officers and the State Health Department of changes of address. They cannot work in any capacity in restaurants or other establishments in which food is served.

Since the first of the year, sixteen cases of typhoid have been reported to the Department. Last year's total for the period was thirty-six.

## IMMUNIZATIONS PLANNED FOR MEXICAN CHILDREN

Immunizing against diphtheria and smallpox during coming weeks of an estimated 15,000 children of Mexican workers in Michigan sugar beet fields is planned by the Michigan Department of Health as insurance against outbreaks of the diseases which could threaten Michigan children. Beet growers and processors are coöperating with the Department in the program.

Plans for the program call for the immunizing of all Mexican children under the age of twelve who accompany their parents from Texas to Michigan beet growing areas this summer. Local health officers and physicians will give the protective treatments. Assistance of growers and processors in rounding up the children has been promised, so that the immunizing can be carried on expeditiously in clinics.

Principal immunizing centers are expected to be in Blissfield, Saginaw, Bay City, Mt. Pleasant, Lansing, Sebewaing and Caro.

## TUBERCULOSIS "CURE"?

Successful vaccination of children against tuberculosis, reported recently in newspapers, holds no immediate hope of a "quick cure" of adult victims of the disease. This was the statement released by the Department to newspapers shortly after an announcement of an experiment among Chicago children with Bacillus Calmette-Guerin vaccine.

The Department pointed out that experiments with this tuberculosis vaccine have been carried on since 1906. Efforts of experimenters have been to weaken a virulent strain of tuberculosis organisms produced in cattle to a point where a vaccine made from them will confer immunity in humans. There is always the possibility that the vaccine may become virulent and dangerous to use and European experiments were halted for several years after disaster attended the vaccination of infants in Lubek, Germany, in 1922. Careful work has been carried on at different points in the United States over a period of years, and the results obtained have been disputed by other equally careful workers. Similar reports of success have been made previously.

**Until such time as the use of this vaccine is sanctioned by the American Medical Association, said the Department, people should not place many hopes on its effectiveness as a tuberculosis cure or preventive.**

## 142,000 DOSES OF TOXOID

Since March 1, Department laboratories at Lansing, Houghton, Powers and Grand Rapids have supplied 142,262 doses of diphtheria toxoid to thirty-three Michigan counties for use in the state's immunization campaign.

Physicians who are on the firing line in the campaign report they are finding an unexpected high percentage of school age children already protected, indicating that there is an increased understanding on the part of Michigan parents of the need for immunizing their children against diphtheria.

Diphtheria caused 18 deaths in Michigan in 1941, an all-time low. Decline in deaths has been steady since 1921, when Michigan's diphtheria death rate of 25.2 per 100,000 persons was highest in the nation.

**Bay County**

The Woman's Auxiliary to the Bay County Medical Society had its final meeting for this spring, Wednesday, May 20, at Mrs. Paul R. Urmston's home.

Following a potluck dinner, Mrs. George M. Brown, president, conducted the business meeting. Mrs. Brown announced that she, Mrs. Kent A. Alcorn and Mrs. John H. McEwan will be delegates to the state convention in the fall, Mrs. R. E. Scrafford and Mrs. W. S. Stinson to be alternates.

Mrs. William J. Butler, president of the State Auxiliary, and Mrs. Henry J. Pyle, state secretary of the Auxiliary, were guests. Mrs. Butler gave an informal talk on the work of the State Medical Auxiliary.

**Genesee County**

A joint session of new and past board members of the Auxiliary to the Genesee County Medical Society was held Tuesday, April 21, 1942, at the Y.M.C.A. It was decided to make the next meeting a Silver Tea to help defray convention expenses; also to cut refreshments to a minimum for the duration using money thus saved to buy defense stamps which will be available at each monthly meeting.

The first meeting under the new officers was held April 28, at the home of Mrs. W. P. Boles. Mrs. R. W. McGregor, secretary, took charge in the absence of President Mrs. Stephen Gelenger and Vice President Mrs. C. W. Colwell. Chairmen of the standing committees were introduced and their reports given. Members were asked to send or bring their donations of money, clothing or bandages for the Kings Daughters Home for children, to the President.

Mrs. Kenneth R. Sandy, program chairman, introduced Mrs. Wm. Wray Squire who gave a sparkling review of "The Vanishing Virginian" by Rebecca Yancey Williams.

Following adjournment, members enjoyed a social hour with Mrs. Wm. B. Hubbard and Mrs. G. L. Willoughby presiding at the tea services.

Hostesses for the tea were Mrs. H. T. White and Mrs. Don Wright. Assisting were Mrs. Arthur Gleason, Mrs. Jas. A. Olson, Mrs. W. Z. Rundles, Mrs. L. L. Willoughby, Mrs. James Rowley, Mrs. Guy Briggs and Mrs. C. P. Clark.

**Jackson County**

The members of Auxiliary to Jackson County Medical Society have been entertained at a dinner dance given by the Doctors, also by the Auxiliary to the Dental Society, at which time Mrs. I. Miller, of Lansing, reviewed "There Shall Be No Night" by Robert Sherwood.

The book review by Mrs. Chas. Dengler, "Mission to Moscow," was timely and very well done.

The "Doctors' Children" were guests at the April meeting and entertained with musical selections, readings, and dances.

The Annual Meeting of Jackson County Auxiliary was held May 19, 1942, at the Country Club. Election and installation of officers followed: president, Mrs. E. O. Leahy; vice president, Mrs. M. D. Wertenberger; secretary, Mrs. Henry Balconi; treasurer, Mrs. Ferdinand Cox; and assistant treasurer, Mrs. Wm. Faust.

A pageant "Down Through the Years" was presented by the past presidents. Arranged and directed by Mrs. T. E. Hackett, the pageant had ten episodes depicting scenes in an Antique Shoppe.

Mrs. E. A. Thayer gave three violin solos.

**Kalamazoo County**

The Kalamazoo Auxiliary's April program which was entitled, "Be Informed About Your Auxiliary" was most interesting and informative. Mrs. Homer Stryker presented an article on the Woman's Auxiliary to the American Medical Association, and the American Medical Association. Mrs. James Malone, Auxiliary historian, then discussed the history of the local group.

This was organized 15 years ago, September 20, 1927. Dr. Carolyn Bartlett Crane, in charge of organizing Woman's Auxiliaries throughout the state, appointed Mrs. Wm. E. Shackleton as local chairman.

There were 25 members present and a cooperative dinner was served from a table centered with a large bowl of pansies. Mrs. Ralph Fast, was the hostess.

During the business meeting which followed, members voted to send a check to the Women's Field Army of Cancer Control.

The annual meeting of the Woman's Auxilary to the Kalamazoo Academy of Medicine was held May 19, 1942, at the home of Mrs. Hugo Aach.

A coöperative dinner was served from a table centered with calendulas and daisies. The business meeting followed and annual reports were read and accepted. The new officers unanimously elected for the new year are: Mrs. James Malone, president; Mrs. Sherman E. Andrews, president elect; Mrs. Louis Gerstner, vice president; Mrs. John Fopeano, secretary; Mrs. Hugo Aach, treasurer.

**Wexford County**

This is to announce the arrival of a new auxiliary to the Michigan State Medical Society. The Wexford-Missaukee physicians' wives formed their organization in April, at Manton, Michigan, with Mrs. W. J. Butler, state president, assisting with the details and advising of the work done by established groups.

# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

*L. Fernald Foster, M.D.,* Bay City, was luncheon speaker at the meeting of the Saginaw Valley Dental Society held in Bay City on May 27.

* * *

*The Mecosta-Osceola County Medical Society* elected new officers as follows: President—Jacob Bruggema, M.D., Evart; Secretary-Treasurer—J. A. White, M.D., Big Rapids.

* * *

*The Bulletin of the Calhoun County Medical Society* announces that the President was authorized to appoint a committee of Calhoun County physicians to coöperate in giving a Nurses Aid Course, sponsored by the American Red Cross.

* * *

*L. Fernald Foster, M.D.,* Bay City Secretary of the Michigan State Medical Society, has been appointed a member of the Advisory Council to the Board of Directors of the Michigan Chapter, National Foundation for Infantile Paralysis.

* * *

*E. F. Sladek, M.D.,* Traverse City, was guest speaker at the meeting of the Wexford-Missaukee County Medical Society held in Cadillac on May 28. Doctor Sladek's subject was "The Early Diagnosis of Cancer of the Colon."

* * *

*Flint's First Nurse,* an article by R. S. Morrish, M.D., was published in the *Bulletin of the Genesee County Medical Society* of May 26, 1942. "Auntie Starr" (Mrs. Mary Starr) was the subject of this article. She started nursing in Flint in 1847.

* * *

*War Expenditures.*—U. S. Budget Director Harold D. Smith revealed June 18, that America's arms factories are rolling so fast now that government war expenditures have climbed to approximately $1,000,000,000 per week, *almost triple those of the British.*

* * *

*Correction!* Through a typographical error, the name of Daniel R. Donovan, M.D., Detroit, was not included in the Roster of members of the Michigan State Medical Society which appeared in the May issue of THE JOURNAL. Apologies!

* * *

*The officers of the American Medical Association* for 1942-1943 are as follows: James E. Paullin, M.D., Atlanta, Georgia, president-elect; William J. Carrington, M.D., Atlantic City, New Jersey, vice president; Olin West, M.D., Chicago, secretary; and Herman L. Kretschmer, M.D., Chicago, treasurer. Col. Fred W. Rankin, M.C., Lexington, Kentucky, was inducted as president for the coming year.

*Howard H. Cummings, M.D.,* Ann Arbor, President-elect of the Michigan State Medical Society, was elected President of the Tri-State Medical Association at its recent meeting. The next meeting of the Association will be held in Ann Arbor in the spring of 1943.

* * *

*Physicians and Congressmen* are both going to have X cards issued to them for gasoline rationing. We will all have to be careful or we might be mistaken for a Congressman after July 1, 1942, and what a hell of a mistake that would be. Pass the sugar, please.—*Bulletin, Oakland County Medical Society,* June, 1942.

* * *

*The Kalamazoo Academy of Medicine* holds a "Master Policy" of insurance which covers the contents of medical bags of members, according to the June *Bulletin of the Kalamazoo Academy.* In addition to the Academy premium, a small fee is paid by the individual doctor for this valuable coverage.

* * *

*The Eaton County Medical Society* elected new officers for the coming year at its meeting of June 18, 1942, as follows: President—Paul Engle, M.D., Olivet; Vice President—Don V. Hargrave, M.D., Eaton Rapids; Secretary-Treasurer—L. G. Sevener, M.D., Charlotte; Delegate—Don V. Hargrave, M.D., Eaton Rapids.

* * *

*Emmet Richards* of Alpena was appointed Chairman of the Crippled Children Commission following the death of Paul King, Detroit, on May 17. The other members of the Commission are: Maurice Aronsson, Detroit; George R. Cooke, Detroit; Max Reynolds, Marquette; and H. B. Fenech, M.D., Detroit.

* * *

*The Bulletin of the Muskegon County Medical Society* is requesting members in active military service to supply it with photographs of themselves in uniform for future publication.

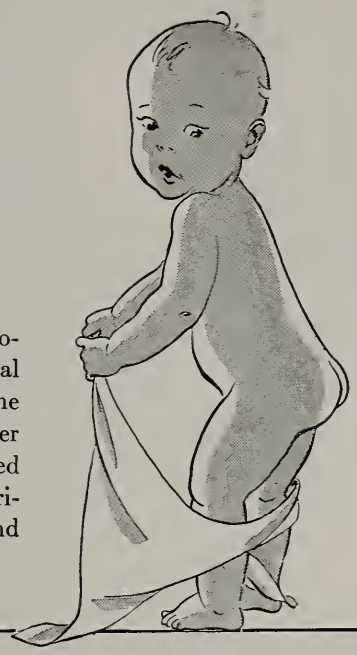
This is a thought that could be followed by all county medical societies of the State. Such photographs in their society archives may be very interesting and important in future.

* * *

*The American Congress of Physical Therapy* will hold its twenty-first annual scientific and clinical session September 9 to 12 at the Hotel William Penn, Pittsburgh, Pennsylvania. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

* * *

# No Lack in Biolac!



WITH THE sole exception of vitamin C, Biolac provides completely for the formula needs of normal infants throughout the entire bottle period. From the time when infants consume a full quart of formula per day, here's how certain essential food factors supplied by Biolac feedings compare with the minimal nutritional requirements recognized by the U. S. Food and Drug Administration.

| | MINIMAL REQUIREMENTS | BIOLAC FEEDINGS |
|---|---|---|
| PROTEIN (gms./lb. body weight) | 1.4 to 1.8* | 2.2† |
| CALCIUM (gms./day) | 1.0* | 1.0 |
| IRON (mgms./100 calories) | 0.75 | 1.25 |
| VITAMIN A (U.S.P. Units/day) | 1500. | 2500. |
| VITAMIN $B_1$ (U.S.P. Units/day) | 83. | 85. |
| VITAMIN $B_2$ (mgms./day) | 0.5 | 2. |
| VITAMIN D (U.S.P. Units/100 calories) | 50. | 63. |

*The Food & Drug Administration has not promulgated minimum requirements for protein and calcium in infancy. The values shown are those recommended by the National Nutrition Conference.

†When Biolac formulas are fed in the amount of 2½ fl. oz./lb. body weight.

Biolac is prepared from whole milk, skim milk, lactose, vitamin $B_1$, concentrate of vitamins A and D from cod liver oil, and ferric citrate. Evaporated, homogenized, *sterilized.*

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*Your Annual Meeting*

The Michigan State Medical Society Annual Meeting will be held Sept. 23, 24, 25 in Grand Rapids. You'll be anxious to get away from the cares of your practice to enjoy a few days of postgraduate medical work (for which credit will be given you) so write today for your hotel reservations. A total registration of 2,000 is anticipated.

*The Nutrition Foundation,* Chrysler Building, New York City, announces grants-in-aid for research projects concerned with advancing the science of nutrition. Grants-in-aid will be made available to established research institutions, upon recommendation of the Scientific Advisory Committee and the Board of Trustees of the Nutrition Foundation, Incorporated.

* * *

*The Upper Peninsula Medical Society's* 1942 meeting will be held July 23-24 in Marquette. The following lecturers will be on the program: James D. Bruce, M.D., Frederick A. Coller, M.D., Albert C. Furstenberg, M.D., Norman F. Miller, M.D., Louis H. Newburgh, M.D., and Herman H. Riecker, M.D., all of Ann Arbor; Robert L. Novy, M.D., and Louis J. Hirschman, M.D., of Detroit.

* * *

*"Renal Changes in a Case of Sulfadiazine Anuria"* by H. A. Bradford, M.D., and J. H. Shaffer, M.D., Detroit, was published in the *Journal, American Medical Association,* issue of May 23, 1942; in the issue of June 6, 1942, "Nervous and Mental Effects of the Sulfonamides" by Sam C. Little, M.D., of Ann Arbor, and "Elimination of Color from Visual Hemoglobinometry" by Don H. Duffie, M.D., Central Lake, Michigan, appeared.

* * *

*The Ingham County Medical Society Bulletin* of May, 1942, contains the following important item:

"Notice to Doctors Leaving for Service: It is important that you notify the City Assessors' Office of your leaving for Service in the Armed Forces. In so doing your equipment will be taken from the tax rolls and you will not have to pay the personal tax on it unless it is still being used by some other person."

* * *

*An Advisory Committee for the Revision of the Compensation Law* of the State of Michigan, appointed by the Michigan State Medical Society, made presentation of proposed changes to the Special Committee to Study and Re-Write the Workmen's Compensation Act, in Detroit on



*Say you saw it in the Journal of the Michigan State Medical Society*

Thursday, June 4, 1942. The Special Committee is composed of J. Duane Miller, M.D., Grand Rapids, Chairman; W. B. Harm, M.D., Detroit and C. E. Lemmon, M.D., Detroit.

* * *

*Ellery A. Oakes, M.D.,* Manistee, Chairman of the MSMS House of Delegates' Special Committee on Nurses' Training Schools, was nominated on June 18 by President Henry R. Carstens as the representative of the MSMS on a Special Joint Committee to consider the Problems of Nursing in the Hospitals of Michigan, a subcommittee of the Michigan Nursing Council for War Service of the Michigan State Nurses Association.

* * *

*Michigan physicians* who won Honorable Mention in the Scientific Exhibit of the American Medical Association at Atlantic City in June were Frank W. Hartman, M.D., Victor Schelling, M.D., Henry N. Harkins, M.D., Brock Brush, M.D., and Kenneth W. Warren, M.D., Detroit, for their exhibit on the "Relative Value of Pectin Solution in Shock"; also Thomas N. Horan and C. Graham Eddy, M.D., of Detroit, on "Laparoscopy; Intra-Abdominal Photography in Color."

* * *

*To back up each fighter,* eighteen makers and handlers of war materials are necessary. This will include many businessmen. The ratio in 1942 is 18 to 1, whereas the ratio in 1917-1918 was 5 to 1. Therefore, civilian work is the key to eventual success and to winning the war! Every businessman (including every doctor of medicine) is enlisted and is most essential in the war effort. This is a cold fact, that must be realized by every citizen.

* * *

*Special Memberships.*—County Society Secretaries are invited to submit to the Michigan Medical Society the names of any physicians for whom special membership (Emeritus, Retired, Associate) in the State Society will be sought at the 1942 MSMS House of Delegates, September, 1942, in Grand Rapids. Certification of these names at this time will permit the Executive Office to ascertain in advance of the meeting whether the qualifications of each physician meet the requirements as set by the MSMS Constitution.

* * *

*Michigan physician-artists* were among the exhibitors at the Fifth Annual Exhibition of the American Physician's Art Association at Atlantic City, June 8-12, 1942, including Morris Braverman, M.D., Detroit; Russell Palmer, M.D., St. James; and H. F. Warden, M.D., Dearborn. The Art Association provides for the public showing of photography, oils, drawings, carvings and other forms of art produced by members of the medical profession. The exhibit in Atlantic City was made possible through the coöperation of Mead Johnson & Company.




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**We believe that where rubber is resorted to in order to make a corset fit, or to provide support or comfort, it is used as a *substitute for designing skill.* The Spencer theory of support, fit and comfort lies in *designing every garment individually for the wearer* of non-stretchable fabric. This assures your patient of . . .**

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**The exact degree of support needed.**

**Definite posture improvement.**

**Accuracy of fit, perfect comfort.**

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**SAWYER SANATORIUM**
White Oaks Farm
**Marion, Ohio**

*Protection against diphtheria and smallpox* was given to 3,741 children by 33 Washtenaw County physicians in one of the most successful immunization programs reported so far, according to an announcement by the Michigan Department of Health.

The program was planned and carried out by the Washtenaw County Medical Society and the Washtenaw County Health Department and was a part of the state-wide immunization campaign prompted by President Roosevelt's May Day-Child Health Day proclamation.

* * *

*"What Does the Nurse Do If a Bomb Drops on Main Street?"* is the title of a governmental news release.

Our answer is: "What do *you* think she does? I'm guessing one thing, and I'm sticking to it!"

* * *

*With so many doctors joining the armed forces,* there's a heavy demand for competent midwives, particularly in rural areas . . .

. . . . *A group of chiropodists* is trying to round up support for a bill for establishing a Podiatory-Chiropody Corps in the army and navy medical departments.—*June 8, Periscope, News-Week.*

* * *

*John M. Murphy, M.D.,* Detroit, won the St. Louis Trophy at the 1942 Tournament of the American Medical Golfing Association held on June 8, at Seaview Country Club, Atlantic City. Doctor Murphy was top man in the Championship Flight (gross, thirty-six hole competition).

*G. Thomas McKean, M.D.,* Detroit, was the winner of the Golden State Trophy, emblematic of Champion in the eighteen-hole event. More than two hundred golfing physicians participated in the tournament including Carl Badgley, M.D., Ann Arbor; F. C. Bandy, M.D., S.S. Marie; Edw. Dowdle, M.D., H. W. Reed, M.D., and Walter J. Wilson, M.D., of Detroit.

* * *

*Mental Test Flaw.*—Medical men who should know say the figures on Army rejections for mental deficiency may not present a true picture. They claim that, with so many men being inducted, psychiatrists frequently can spend only a few minutes testing draftees. This is not enough time for a thorough examination and the doctor often has to make a snap judgment which may not properly take into consideration the draftee's nervousness and excitement. Thus, many are unfairly classified as deficient who, while far from brilliant, could pass the relatively simple army tests under more favorable circumstances.—*June 15, Periscope, News-Week.*

* * *

*Members of The Lenawee County Medical Society* were hosts to the officers of the Michigan State Medical Society at Adrian on Tuesday, May 19. Present representing the State Society were H. H Cummings, M.D., Ann Arbor, Presi-



*Say you saw it in the Journal of the Michigan State Medical Society*

dent-elect; A. S. Brunk, M.D., Detroit, Council Chairman; L. J. Johnson, M.D., Ann Arbor, Councilor of the Fourteenth District; L. Fernald Foster, M.D., Bay City, Secretary; J. S. DeTar, M.D., Milan, of the Public Relations Committee; and Wm. J. Burns, Lansing, Executive Secretary.

The meeting was conducted by Esli T. Morden, M.D., President of the Lenawee County Medical Society. Fifty members and guests were present.

* * *

*The Wayne County Emergency Medical Service Chiefs* held a meeting at the Wayne County Medical Society headquarters Sunday, May 24, prior to the Detroit blackout pratice. Present were John S. Coulter, M.D., of Chicago, Regional Medical officer of the Office of Civilian Defense, and L. H. Gaston, M.D., Lansing, Deputy Chief of Emergency Medical Services, Michigan Council of Defense; Grover C. Penberthy, M.D., and Bruce H. Douglas, M.D., Detroit, Chiefs of Emergency Medical Services; John H. Law, M.D., Detroit, James A. Bechtel, Executive Secretary of the Wayne County Medical Society and Wm. J. Burns, Executive Secretary of the Michigan State Medical Society.

* * *

*The Institute on "Practice of Medicine in Total War,"* to be held as part of the MSMS Annual Meeting, Tuesday, September 22, 1942, Pantlind Hotel, Grand Rapids, will have the following interesting subjects on its program, beginning at 12 noon:

1. "How England Reacted to a War Brought Home"
2. "Nutritional Problems in Wartime"
3. "Civilian Morale in Time of War"
4. "The Modern Treatment of Civilian Injuries Incident to Warfare"
5. "The Infectious Disease Problem in Wartime."

The Institute will end with a question and answer period, open to all in attendance.

* * *

*The Navy* needs doctors and dentists. According to a release from Commander Emil J. Stein, senior medical officer of the Office of Naval Officer Procurement, recent rumors that the Navy is no longer accepting applications for commissions in the Medical and Dental Corps are entirely without foundation. The enlistment of thousands of men daily makes it imperative for the Navy to keep the fighting fleets and shore establishments supplied with doctors and dentists to maintain the high Navy health standards. Physicians and dentists from 21 to 50 years of age who can pass the physical and other requirements may apply for commissions. Applications may be made in person or mailed to the Office of Naval Officer Procurement, Board of Trade Building, Chicago.

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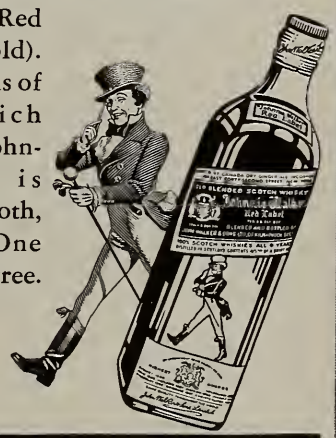

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The above paragraph comes to doctors in an unsolicited letter from an individual in Chicago. It is a "come-on" from an optical company whose activities have been the cause of investigation.

Toss such letters into the most convenient wastepaper basket. The communication is worthy only of such treatment.

* * *

*Michigan Delegates* to the American Medical Association Convention in Atlantic City were honored by the following appointments in the House of Delegates: Henry A. Luce, M.D., Detroit, was made a member of the Reference Committee on Legislation and Public Health; L. G. Christian, M.D., Lansing, was made a member of the Reference Committee on Sections and Section Work; and Frank E. Reeder, M.D., Flint, was appointed as Sergeant at Arms. T. K. Gruber, M.D., Eloise and C. R. Keyport, M.D., Grayling, were the other members representing the Michigan State Medical Society. Grover C. Penberthy, M.D., Detroit, represented the Section on Surgery, General and Abdominal; Jean Paul Pratt, M.D., Detroit, represented the Section on Obstetrics and Gynecology; and Burt R. Shurly, M.D., Detroit, was the representative of the Section on Laryngology, Otology and Rhinology.

* * *

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White Laboratories, Inc., Newark, New Jersey.

Winthrop Chemical Company, Inc., New York City.

John Wyeth & Brother, Inc., Philadelphia, Pennsylvania.

Zimmer Manufacturing Company, Warsaw, Indiana.

The above seven firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or service.



*Say you saw it in the Journal of the Michigan State Medical Society*

*Warning!* A man came to a physician's office recently stating that he and his mother were visitors in the vicinity; that his mother was suffering with cancer of the stomach and needed ¼ grain of morphine three times daily. The physician insisted upon examining the mother (who did not accompany the man to the physician's office) before prescribing the drug and during the conversation inadvertently disclosed the information that he would be absent from the office from 4 to 6 p.m. Arrangements were made for the mother to visit the doctor at 7 p.m. However, while the physician was absent, his office was burglarized and a quantity of morphine as well as cash and stamps were taken. The man was approximately thirty-five to forty years of age, weight 150 pounds, about 5 feet, 8 inches tall with a slightly narrow face. Any physician who is approached by anyone resembling this man should immediately notify the Michigan State Police.

* * *

*The June Bulletin of the Ingham County Medical Society* published the following interesting notice:

*Society Important to All Physicians*

"Every qualified physician should unite with a County Medical Society: Because it attempts to maintain a program of scientific education for the members of the society keyed to the constantly developing discoveries in the field of medicine.

"Because of its purpose to coördinate the charitable activities of the members for the assistance of worthy, underpriviliged citizens.

"Because it unites the representative members of the medical profession, bringing due recognition through community interests, and undergirds effective programs for supplying in national emergencies the medical needs of our armed forces as well as medical care at home.

"Because of its program of educational service to the public on matters of health and hygiene.

"United effort obviously tends to overcome individual apathy and to stimulate one's activity in behalf of civic health and general welfare."

* * *

**Michigan's Hospital Units Await New Call**

The Seventeenth General Hospital (Harper Hospital, Detroit) Unit under the command of Colonel Henry R. Carstens, M.C., and the Two-Hundred and Ninety-Eighth General Hospital (University of Michigan, Ann Arbor) Unit, under the command of Colonel W. G. Maddock, M.C., received a warning notice from the Army in June that it could expect a call to active duty on or after July 15 and June 27, respectively.

Thus two of the three General Hospitals of Michigan will soon be on the move. The third, the Thirty-Sixth General Hospital (Wayne Uni-

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versity, Detroit) under the command of Colonel W. C. C. Cole, M.C., is still being organized and will undoubtedly be ordered into action in the near future.

The August JOURNAL will contain a list of the medical officers connected with the three General Hospital Units of Michigan.

* * *

*Location and owners of adult cabinet type respirators* throughout Michigan are listed below by courtesy of the National Foundation for Infantile Paralysis. Keep this list for handy reference in case of emergency.

| | |
|---|---|
| Ann Arbor (*Washtenaw*) | University Hospital ....(2) |
| Battle Creek (*Calhoun*) | Community Hospital<br>Leila Y. Post Montgomery Hospital |
| Benton Harbor (*Berrien*) | Mercy Hospital |
| Cadillac (*Wexford*) | Mercy Hospital |
| Dearborn (*Wayne*) | Junior Chamber of Com. |
| Detroit (*Wayne*) | Children's Hospital<br>Herman Kiefer Hospital .....(3) |
| Eloise (*Wayne*) | Wayne County Superintendent of Poor |
| Flint (*Genesee*) | Hurley Hospital |
| Grand Rapids (*Kent*) | Blodgett Memorial Hosp.<br>Butterworth Hospital |
| Hancock (*Houghton*) | St. Joseph's Hospital |
| Iron Mountain (*Dickinson*) | Iron Mountain Gen. Hosp. |
| Ironwood (*Gogebic*) | Grand View Hospital |
| Jackson (*Jackson*) | W. A. Foote Memorial Hosp.<br>Jackson County Sanatorium |
| Kalamazoo (*Kalamazoo*) | Borgess Hospital (Owned by Kalamazoo County Chapter of The National Foundation) |
| Lansing (*Ingham*) | American Legion<br>Edward W. Sparrow Hosp.<br>Lansing City Hospital |
| Marquette (*Marquette*) | Michigan Children's Clinic<br>St. Luke's Hospital.....(4)<br>(1 Owned by Chicago & North-Western Rwy Co.)<br>(1 owned by Marquette County Chapter of The National Foundation) |
| Mason (*Ingham*) | Ingham County Health Department |
| Muskegon (*Muskegon*) | Veterans of Foreign Wars |
| Paw Paw (*Van Buren*) | Van Buren County Supervisors |
| Pontiac (*Oakland*) | Oakland County Contagious Hospital |
| Port Huron (*Saint Clair*) | Port Huron Hospital |
| Saginaw (*Saginaw*) | Saginaw County Hospital |
| Traverse City (*Grand Traverse*) | James Decker Munson Hospital |

* * *

## SUPPLEMENTARY ROSTER

The following members were certified to the Executive Office of the Michigan State Medical Society after the Roster which appeared in the June issue of THE JOURNAL was sent to the press:

**Bay-Arenac-Iosco**

Pearson, Stanley M.....Bay City

**Berrien**

Anderson, H. B.....Watervliet
Leva, J. B.....Benton Harbor

**Calhoun**

Bonifer, Philip P. ..... Battle Creek
Hansen, E. L. ..... Battle Creek
Hoyt, Aura A. ..... Battle Creek
Robbert, John ..... Climax
Whyte, Bruce ..... Battle Creek

**Delta-Schoolcraft**

Diamond, J. A. ..... Gladstone

**Eaton**

Lawther, John ..... Ann Arbor

**Genesee**

Dodds, Frederick E. ..... Flint
Drewyer, Glen E. ..... Highland Park, Ill.
Eichhorn, Ernest M. ..... Flint
Gutow, Isadore ..... Flint
Harper, Alexander W. ..... Flint
Hawkins, James E. ..... Flint
Johnson, Arthur H. ..... Flint
Johnson, Frank D. ..... Flint
Smith, D. C. ..... Flint
Sutherland, James K. ..... Flint
Walden, Coburn E. ..... Howell

**Grand Traverse-Leelanau-Benzie**

Hyslop, William T. ..... Traverse City
Willard, William T. ..... Benzonia

**Jackson**

Adams, Dewitt C. ..... Jackson
Lewis, E. F. ..... Jackson
Munro, C. D. ..... Jackson
Wilson, E. G. ..... Jackson
Winter, G. E. ..... Jackson
Young, Roland P. ..... Casapalco, Peru

**Kent**

Failing, J. F. ..... Grand Rapids
Smith, Edwin M. ..... Grand Rapids
Vann, Norman ..... Grand Rapids
Wiggers, J. R. ..... Grand Rapids
Winter, Garret E. ..... Grand Rapids

**Lenawee**

Growt, Bowers H. ..... Addison

**Mason**

Davis, R. A. ..... Ludington

**Northern Michigan**

Benson, A. A. ..... Mancelona
Duffie, Don Hastings ..... Central Lake
McCarroll, James C. ..... Cheboygan
Winter, Joseph A. ..... Cheboygan

**Oakland**

Arnkoff, Harry ..... Pontiac
McEvoy, F. J. ..... Royal Oak
Shadley, Maxwell ..... Pontiac

**St. Joseph**

Pennington, Harry ..... White Pigeon

**Washtenaw**

Crabtree, Peter ..... Ann Arbor
Cummings, Robert Howard ..... Ann Arbor
DeAlvarez-Skinner, Russell R. ..... Ann Arbor
Northway, Robert O. ..... Ann Arbor

**Wayne**

Altshuler, Abraham M. ..... Detroit
Burnham, Frederick V. ..... Detroit
Caughey, Edgar H. ..... Detroit
Colvin, Leslie T. ..... Detroit
Cotton, Schuyler O. ..... Detroit
Fallis Lawrence S. ..... Detroit
Gamble, Parker B. ..... Detroit

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Goldberg, Harry H. ..... Detroit
Graff, J. M. ..... Detroit
Gramley, William ..... Detroit
Griffith, Arthur J. ..... Detroit
Gurman, Ben George ..... Detroit
Harris, Albert E. ..... Detroit
Howlett, Howard T. ..... Detroit
La Bine, Alfred C. ..... Detroit
Lamberson, Frank ..... Detroit
Lawrence, William C. ..... Detroit
Levitt, Nathan ..... Detroit
Malina, Stephen ..... Eloise
Manning, Morey H. ..... Detroit
Martin, J. B. ..... Detroit
Mead, John ..... Detroit
Noth, Paul H. ..... Grosse Pointe
Pearman, Charles L. ..... Detroit
Pierson, Max J. ..... Detroit
Ross, Worth ..... Detroit
Schillinger, Harold K. ..... Dearborn
Sieber, Edward H. ..... Dearborn
Smith, Charles E. ..... Detroit
Straith, Claire L. ..... Detroit
Stubbs, Harold W. ..... Detroit
Tasker, Helen ..... Detroit
Truskowski, Edward G. ..... Hamtranck
Wittenberg, Arthur A. ..... Detroit

**Wexford-Missaukee**

Lommen, Ralph ..... Manton

## HAS IT COME TO THIS?

Citing five instances of Japanese attempts to spread dread diseases among the Chinese population, P. Z. King, M.D., director of the Chinese National Health Administration charged that the Japanese were using the Chinese people as guinea pigs to test the effectiveness of bacteriological warfare. He concludes:

"The enumeration of facts thus far collected leads to the conclusion that the Japanese Army has attempted bacterial warfare in China. Fortunately, the mode of infection and the method of control of plague are known. Our difficulty at present is the shortage of the anti-epidemic supplies required. New drugs, more or less effective for the treatment of plague cases, sulfathiazole and allied sulphonamide compounds, China cannot as yet produce herself.

"For prevention, plague vaccine can be produced in considerable quantities here, provided the raw materials required for vaccine production are available. Rat-proofing of all buildings and eradication of rats are fundamental control measures, but under war conditions they cannot be satisfactorily carried out.

"If rat poisons such as cyanogas and barium carbonate can be obtained from abroad in large quantities, deratization campaigns may be launched in cities where rats are a menace."—*United China Relief News Bulletin.*



*Say you saw it in the Journal of the Michigan State Medical Society*

## LETTER TO THE EDITOR

June 23, 1942

Editor, Journal MSMS,
Muskegon, Michigan

Dear Sir:

These days of federal rationing and priority of all scarce or limited articles has deeply impressed me with the possibility that our "country fathers" in Washington, D. C., might soon think of rationing and redistributing the doctors; particularly if we on our own accord are not providing a safety valve in some form or shape, to forestall too much accumulation of discontent in our very outspoken citizenry.

Our constantly diminishing ranks of physicians due to army needs, no doubt will leave many areas of our State rather poorly supplied with competent medical aid. The experience of the last war with its fury of the influenza epidemics is still fresh in our minds and a repetition of such an experience we should energetically try to forestall.

Today the public seems a lot less modest in their demands than twenty-five years ago and if sufficient evidence of inadequate distribution of doctors is presented at Washington we will soon find out that our democracy can apply quite aptly dictatorial practices in regard to us.

Would it not be expedient to create a clearing house of our own, whereby a redistribution of doctors on a voluntary basis could be fostered and in such a way forestall a mandatory degree in possible military fashion, as another so-called "emergency measure?"

We have managed quite well to avoid the threatening induction of State medicine during the depression years; can we not look far enough ahead into the future to save us the anxiety of another similar threat to our cherished individualism, and personal liberty.

Surely we should have the intellects to find the proper solution. May I herewith agitate some action and possibly help to follow it through, efficiently and in good time; not in the regretable military manner of 1940 and '41 by "too little and too late."

Very sincerely,
Carl R. Zolliker.

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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

ENDOCRINOLOGY. Clinical Application and Treatment. By August A. Werner, M.D., F.A.C.P., Assistant Professor of Internal Medicine, St. Louis University School of Medicine; Associate Physician, St. Mary's Group of Hospitals; Physician Endocrine Clinic, Desloge Hospital and the Missouri State Hospital No. 4, Farmington, Mo. Second Edition, thoroughly revised. Philadelphia: Lea & Febiger, 1942. Price: $10.00.

This is the second much enlarged and almost entirely rewritten edition of a work on this rapidly advancing science. It is well illustrated. Well selected case reports and diagrams aid in making clear this intricate division of medicine. The material is exceptionally complete. The typography is excellent. It is recommended as a reference or textbook.

* * *

HUGHES' PRACTICE OF MEDICINE. Revised and Edited by Burgess Gordon, M. D., Clinical Professor of Medicine, Jefferson Medical College; Director and Physician-in-Charge, Department for Diseases of the Chest, Jefferson Hospital; Assistant Physician, Jefferson Hospital; Physician, Pennsylvania Hospital; Visiting Physician, the White Haven Sanatorium; Consultant in Tuberculosis, Philadelphia State Hospital; Consulting Physician, Frederick Douglass Memorial Hospital; Lieutenant Colonel, Medical Reserve, Base Hospital No. 38. Sixteenth Edition. Philadelphia: The Blakiston Company, 1942. Price: $5.75.

This is the sixteenth edition. It has been revised and edited by Burgess Gordon with the collaboration of several specialists. In a volume of 791 pages almost every field of medicine has been covered. Its approach is decidedly practical and therapy is emphasized. The typography is excellent, the type is rather small but clear and distinct, enabling compilation of a vast amount of material in one volume. It is recommended as a reference book to any general practitioner.

* * *

BUILDING MORALE. By Jay B. Nash, Ph.D., Chairman of Department of Physical Education and Health, School of Education, New York University. New York: A. S. Barnes and Company, 1942. Price: $1.00.

"Morale wins wars, wins games on the athletic field, conquers the wilderness, carries us over crises and gives nations vitality to face and solve problems." Dr. Nash goes on saying morale by itself has no significance, but morale for a purpose is the all-important spirit that makes for victories. From there on the various principles and methods of building morale are delineated. A book well worth reading.

* * *

A CLINICAL GUIDE. By the Medical Research Division, The Schering Corporation, 1941.

The Schering Medical Research Division has compiled the available material on sex hormone therapy. The subject matter is well organized and practical in nature. The small books represent easily available source of information of this subject.

A TEXTBOOK OF SURGERY. By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School, Chief Surgeon, Evanston (Illinois) Hospital. With 1,538 illustrations on 771 figures. Third Edition, Completely Revised and Reset. Philadelphia and London: W. B. Saunders Company, 1942. Price: $10.00.

This is the third edition of this well-known text first published in 1936. It has an imposing list of contributors. A new section on war injuries has been included under the direction of Robert I. Harris of Toronto. It is profusely illustrated and well arranged for ready reference. The typography is good and it is recommended as a text or reference.

* * *

THE BOND BETWEEN US. The Third Component. By Frederic Loomis, M.D., Diplomate of the American Board of Obstetrics and Gynecology. New York: Alfred A. Knopf, 1942. Price: $2.50.

The author of "Consultation Room" has written a fascinating group of experiences illustrating the third component of life—the human relationship. It is a book of sheer drama which will interest the physician even though written for the layman. You may well recommend this volume to your interested patients.

* * *

INTERNAL MEDICINE IN OLD AGE. By Albert Mueller-Deham, M.D., Associate Visiting Physician, Welfare Hospital for Chronic Disease (Second Division), Department of Hospitals, New York City; formerly Clinical Professor of Internal Medicine, University of Vienna Medical School, and Chief of Medical Division, Municipal Hospital for Chronic Disease, Vienna; and S. Milton Rabson, M.D., Assistant Professor of Pathology, New York Post-Graduate Medical School, Columbia University (on leave); Lieutenant Commander, United States Naval Reserve. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1942. Price: $5.00.

The material is based for the most part on the personal observation of many old patients at the bedside and at necropsy, by these authors who have had a particular interest in this subject for many years. Under specific chapter headings it deals with the common ailments which present a problem in the patient of advanced years. The material is well presented and unusually practical. The typography is good. The volume is not illustrated. It is recommended to any advanced general practitioner.

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MEDICINE—Two Weeks Intensive Course will be offered starting October 5. Two weeks Course in Gastro-Enterology will be offered starting October 19. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting September 21. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5. One Month Personal Course starting August 3. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21. Three Weeks Course starting August 10. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28. Five Weeks Course in Refraction Methods starting October 19. Informal Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

*General, Intensive and Special Courses in All Branches of Medicine, Surgery and the Specialties.*

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# Reading Notices

## POLLEN COUNTING INFORMATION

Throughout the state of Michigan, including the Upper Peninsula, there have been repeated requests for pollen counting information not only for the current year but also for many years previous. The Barry Allergy Laboratories have compiled over the last ten years, pollen counting data; and for the last five years, fungi counting data as well; the information being released in many instances through the newspapers and radio stations to facilitate immediate widespread knowledge of daily counts. This survey is again to be conducted this year, not only for the months of August and September, but also for May, June, and July and it will be a pleasure to submit without obligation, any data required, to any member of the Michigan State Medical Society.

This information is generally used in determining possible causative factors of patients' conditions, as well as a guide in interpreting patient's symptoms as to whether they were due to a dosage or to irritants in the outside atmosphere. A postcard request will be honored immediately if mailed to the executive offices of the Michigan State Medical Society or directly to the Barry Allergy Laboratories, Detroit, Michigan.


***All worth while laboratory examinations; including—***

**Tissue Diagnosis**

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Oliver W. Lohr, M.D., Director

**537 Millard St.**
**Saginaw**
**Phone, Dial 2-3893**

**The pathologist in direction is recognized by the Council on Medical Education and Hospitals of the A. M. A.**


## INTOLERANCE TO DIETHYLSTILBESTROL

Nausea and vomiting have been the most frequent side-effects following administration of Stilbesterol (diethylstilbestrol). A recent report (*Jour. A.M.A.*, 119:400, May 30, 1942) points out that there is a definite relation between these symptoms and the nausea and vomiting of early pregnancy. If one will merely take the time to ask the prospective patient if she had nausea and vomiting with a previous pregnancy, it would serve as a warning to give not over 0.25 mg. daily as an initial dose. Desensitization may be accomplished by giving 0.1 mg. tablets once daily for five days, then increasing the dose gradually until the therapeutic level is reached. Diethylstilbestrol, Lilly (formerly known as Stilbestrol) is available in 0.1 mg. tablets, as well as in larger doses, for oral administration.

## SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies.

Please send for samples to Mead Johnson & Company, Evansville, Indiana.


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*Say you saw it in the Journal of the Michigan State Medical Society*

# Timely Hints on Immunization . . .

## *Diphtheria Toxoids* **Lederle**
## *Smallpox Vaccine* **Lederle**

COOPERATING WITH THE NATIONAL PLAN of having all children over six months of age immunized against diphtheria and smallpox, public health authorities of several states are undertaking intensive drives of their own to secure the protection of a maximum number of children from these infectious scourges of childhood.

Statistics† show that there was an increase of over 1,200 cases of diphtheria in the country in 1941 over the number reported for 1940. The median for the five preceding years was almost twice the number for 1940. Let us not lose valuable ground gained—the upward trend in the incidence of diphtheria must not continue in 1942!

The method of diphtheria immunization most generally favored at present is 2 doses of alum precipitated toxoid or 3 doses of plain toxoid. In addition, the Department of Health of New York City has adopted the plan of urging that a single supplemental dose of 1 cc. of plain toxoid be given shortly before entering school to all children who have previously been immunized during infancy.

Smallpox incidence in 1941 reached a new low,† and public health authorities and practitioners should be proud of this attainment! However, 1,368 cases of smallpox were reported in 1941. Since this is a preventable disease, it is obvious that the goal has not yet been reached.

†Pub. Health Rep. 57:23,24 (Jan. 2) 1942.

| IMMUNIZATION SCHEDULE | | |
|---|---|---|
| Immunization should be carried out against: | LEDERLE PRODUCT | TIME |
| Smallpox | Smallpox Vaccine* | 6-12 months (revaccinate at 6 and 12 years) |
| Diphtheria | Diphtheria Toxoids* | 6-12 months (Schick Test at 6 years—reimmunize if necessary) |
| Rabies | Rabies Vaccine* | Promptly after exposure |
| **Immunization is recommended against:** | **LEDERLE PRODUCT** | **TIME** |
| Scarlet Fever | Scarlet Fever Streptococcus Toxin* | After 18 months |
| Measles | Immune Globulin* | After exposure |
| Tetanus | Tetanus Toxoid* | Before probable exposure |

**Accepted by Council on Pharmacy and Chemistry of the American Medical Association.*

PACKAGES

"DIPHTHERIA TOXOID *Lederle*"
(Plain)
1 and 10 immunizations

"DIPHTHERIA TOXOID *Lederle*"
(Refined Alum Precipitated)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*"
(U. S. P.)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*"
(Preserved with Brilliant Green)
1, 5 and 10 immunizations

*Pocket-size card, showing Lederle's Immunization Schedule and Chart of Vitamin requirements, on request.*

*Specify* **Lederle**

LEDERLE LABORATORIES, INC., 30 Rockefeller Plaza, New York, N. Y.

# ✶ HALF A CENTURY AGO ✶

## DIPHTHERIA—THE REPORT OF CASES*

D. E. WELSH, M.D.

Grand Rapids, Michigan

Mr. Chairman and Gentlemen: I present for your consideration a subject which is an all important one, and one with which nearly every one of us has had more or less experience. At times, a remedy advanced and used has been proven to possess most gratifying results. Again, failures occur, and we seek new fields to find remedies to combat this so dreaded a disease.

The object of this paper is not to enter into the discussion of the theory or the cause of this disease, but to report a prescribed plan followed out in the treatment of an epidemic occurring in my practice. This outbreak occurred in the St. John's Orphan Asylum, located in the city of Grand Rapids.

The Asylum is a charitable institution, under the control of the Sisters of Charity, and located on East Leonard street, in the northwestern part of the city, on elevated ground, which commands a good view of the major portion of our city; it is isolated from all surrounding buildings, its nearest neighbor being a ward schoolhouse, located five hundred feet southeast of it. The building has been occupied only for the past three years; it is modern in its improvement, being four stories high, heated by steam, with water and closets and baths on second and third floors, and sewer connection with the Leonard street sewer, which is a main trunk sewer and only built about one and one-half years, and located over one hundred feet from the building. The cellar has cemented floor and sides, used for play room in wet weather and for laundry purposes. The sleeping rooms are very large, the dimensions being:

First floor—29 feet x 44 feet x 11 feet.
Second floor—26 feet x 45 feet x 11 feet.
Third floor—17 feet x 35 feet x 11 feet.
Fourth floor—50 feet x 35 feet x 11 feet.
Fourth floor—22 feet x 34 feet x 11 feet.

*Hospital Room*

Second floor, 17 feet x 35 feet x 11 feet.

These rooms have never been occupied except as herein stated.

At the time of the outbreak of the disease, the inmates of the asylum numbered seventy-two children, varying in ages from three to fifteen years, and under the guardianship of eight or ten sisters. The source of infection can be traced only in this manner: a child was brought to the institution for admission, in the evening, when, on careful examination, which is always done, it was learned that the child came from a location in the city in which there had existed diphtheria, and that inmates of the same house in which she had lived had died of the disease, ten days or two weeks previously, this child also having had it, as was stated, several weeks, but had not been very sick; she was then ordered home, and in ten days following the first case made its appearance, August 17, 1891.

I was called in consultation by my friend, Dr. C. M. Kelley, who was in charge, one week after the development of the disease, and found three cases existing, one having died that day, and one dying the same evening. The plan of treatment adopted suggested itself, having had several other cases with Dr. S. R. Wooster, of this city, who also visited this institution with me. The children having already been isolated and placed in the room set apart for hospital purposes, it was then suggested that they be removed to the large room in the fourth story, the dimensions being 50 x 55 x 11.

This room faces the east and west, and good ventilation and sunlight could be obtained. No furniture was allowed in the room, save beds and bedding and several chairs for the nurse. This room was placed in charge of one of the sisters, who remained until the disease had abated. When the disease was at its height, she was assisted by the older patients and another nurse, who remained entirely in this room.

These children were each supplied with individual spoons, two towels, clothes and wash ba-

*Presented at the Twenty-seventh Annual Meeting of the M.S.M.S. held in Flint in May, 1892.

sin, and receptacles for spitting and throwing the clothes in after using, which were immediately burned. Our attention was then drawn to the remaining children, and they were examined individually and carefully, and as soon as the slightest patch or inflammatory condition was shown, they were removed to the room used for hospital purposes, the size being 17 x 35 x 11, and when the patch fully developed they were removed to the fourth floor. As soon as a child was taken to the third floor, it was given its own spoon, cup, and basin, etc., and when removed to the fourth floor, they were taken with them, thus preventing, or attempting, if possible, to avoid infection in every manner. The children were examined four times daily, either by Dr. Kelley or myself, and at each examination some would be transferred.

As soon as the condition of any of the patients in the fourth story assumed severe malignancy, they were removed to another room across an entry six feet wide, the dimensions of that room being 22 x 34 x 11, facing the northwest and west. All admitted to this room died, with one exception.

Those that died were buried as soon as possible; if dying in the morning, they were buried the same evening; if at noon, that evening; if at night, the following evening; the first patient dying August 21, 1891; the last patient dying October 16, 1891.

As soon as convalescence was declared in any of the cases, the patients were removed to the third floor room and remained for two weeks before they were allowed to leave the room, when they were taken downstairs in charge of the nurse, who remained constantly with them in the room, and allowed to play on the north side of building, where they would not commingle with any of the other children, thus preventing infection.

After the outbreak was over, all the clothing worn by the nurses and children, and bedding, was fumigated with sulphur, then aired and washed in chlorinated soda water; the vessels used by the children were disinfected with chlorinated lime, and the building thoroughly disinfected with sulphur at different times.

I can but state the age of the patients and duration of the disease, except in those whose case had something beyond the ordinary:

| *Name* | *Age* | *Duration* |
|---|---|---|
| John S. | 11 | 8 days |
| William L. | 12 | 8 days |
| William H. | 7 | 8 days |
| John C. | 7 | 8 days |
| Mamie S. | 8 | 8 days |
| Herbert G. | 6 | 8 days |
| Joseph V. | 7 | 8 days |
| Mary F. | 13 | 8 days |
| Kate M. | 13 | 8 days |
| Katie F. | 14 | 8 days |
| Mary S. | 12 | 8 days |
| Maggie O. | 11 | 8 days |
| Annie O. | 7 | 2 weeks |
| Francis E. | 5 | 2 weeks |
| Edward L. | 6 | 2 weeks |
| Christian P. | 6 | 2 weeks |
| Eugene G. | 7 | 2 weeks |
| Fannie L. | 9 | 2 weeks |
| Roy G. | 6 | 2 weeks |
| Mary H. | 5 | 2 weeks |
| Retie K. | 4 | 2 weeks |
| Katie H. | 7 | 2 weeks |
| Lizzie M. | 10 | 2 weeks |
| Mary M. | 7 | 2 weeks |
| Edith S. | 9 | 2 weeks |
| Leo G. | 10 | 3 weeks |
| Ray T. | 8 | 3 weeks |
| George D. | 6 | 3 weeks |
| Terressa R. | 6 | 3 weeks |
| Lizzie O. | 5 | 3 weeks |
| Maud H. | 8 | 3 weeks |
| Pearl P. | 5 | 3 weeks |
| Annie O. | 7 | 4 weeks |
| Katie M. | 5 | 4 weeks |
| Sarah H. | 6 | 8 weeks |

These were all typical cases, there being tonsillar, palatine, and pharyngeal involvement, with the exception as hereinafter stated. Ten patients, or 21.7 per cent, suffered from antero and postnasal involvement. Five patients, or 10.8 per cent, suffered from epistaxis; in some cases it was severe, requiring the plugging of the anterior nares, while in others it was easily controlled by hot water injections, or astringent alum water. This epistaxis was due to picking of the nose, which was almost impossible to prevent. Ten patients, or 21.7 per cent, had laryngeal symptoms present themselves at different times of the disease. Six patients, or 13.04 per cent, had a recurrence of the patches in the throat, and were sent from the second to the third floor for treatment. Six died, or 13.04 per cent of this number, three having died prior to the use of the following plan, thus making 8.7 per cent death rate by it. Those dying suffered from severe laryngeal,

nasal, and post-nasal involvement and sepsis, their ages being:

| *Name* | *Age* | *Duration* |
|---|---|---|
| Anna S. | 11 | 4 days |
| Alice M. | 11 | 2 weeks |
| Lizzie S. | 6 | 4 days |
| Frankie R. | 4 | 5 days |
| Martha L. | 4 | 2 weeks |
| S —— | 21 | 10 days |

The plan of treatment adopted was simple, and the results can only be attributed to their careful nursing and training, in this, that an application having to be made, it was submitted to readily.

Each patient was required to drink three mugs of milk daily; one to two grains of quinine was given three times daily, according to the age of the patient. Three to five drops of tr. ferri chlor., in one or two drachms of whisky, four times daily, according to age. The throat was penciled four times daily, either by myself or Dr. Kelley, with the full strength of sulpho-calcine, prepared by Reed & Carnick, of New York, and in the interval they used a gargle of a 10 per cent solution of sulpho-calcine. For the nasal involvement, a pledget of cotton was wound on a cotton-holder, and this passed into the nares as often as the throat was penciled.

I cannot speak too highly of this preparation of sulpho-calcine. While the first application of the same is very disagreeable to the little sufferer, and, as a rule, causes them to vomit, they soon become accustomed to its use, and the relief afforded them, they soon learn, repays them for its being disagreeable.

Other cases occurring in private practice could be mentioned as being treated successfully with this remedy, but suffice that by this plan, the percentage of deaths is decreased, and I submit its use for your consideration, knowing the good results I have obtained, can be obtained also by you.

---

**REMEDY FOR PREMATURE BIRTHS**

In a cheap, 30-year-old medicine, the University of Illinois medical college has discovered a potent remedy for premature births, reports the Wide World syndicate. The medicine is a hormone extract from sows and costs about 40c a tubeful, compared with $1.25 for the premature birth remedy usually employed. Used in Cook County Hospital on 300 cases of threatened premature births, the cheap extract is said to have saved 80% of the babies, while in 50 cases not given the remedy 60% of the mothers lost their babies. Moreover says the article, the medicine has stopped premature labor and has helped to control hemorrhages.

# War Bulletins

## Paul McNutt's Atlantic City Talk

Paul V. McNutt, chairman of the War Manpower Commission, addressed the AMA House of Delegates in Atlantic City, June 8, on "The Procurement of Physicians." Extracts from this talk, as taken from a special statement for JAMA, follow:

"On June 8 I described to the American Medical Association at its Atlantic City meeting the acute need for physicians for the military services. I pointed out how far the recruitment of physicians lagged behind expected quotas. In conclusion I stated bluntly the fact, which could not have been evaded by any analysis, that unless voluntary recruitment progressed more rapidly some more rigorous form of selective service must be resorted to . . . .

"Those facts were necessary in order to permit the medical profession to diagnose its own case. And the case is urgent; physicians are members of what is probably the most indispensable of all professions. Despite the harshness of the facts and the bluntness with which I had to state them, I felt that the profession should be informed . . . .

"We need more than twenty thousand additional physicians by the end of this year. But eight states—New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—should account for nearly sixteen thousand of that shortage . . . .

"By contrast, sixteen states have fewer than a hundred physicians to go to reach the total number they should supply . . . .

"We must not underestimate the serious drain this puts on available medical services in civilian communities. It will mean long hours and hard work—sacrifices which will multiply the deep debt that every community owes to its physicians . . . .

"The individual physician has not realized the genuine urgency of the need. Measures must be taken which will bring those home to every individual. This means that there will have to be some education of the general public. Preventable illness must be reduced to a minimum. Unreasonable demands on the physician's time must be reduced to a minimum. Thus only may available medical service adequately cover the needs."

---

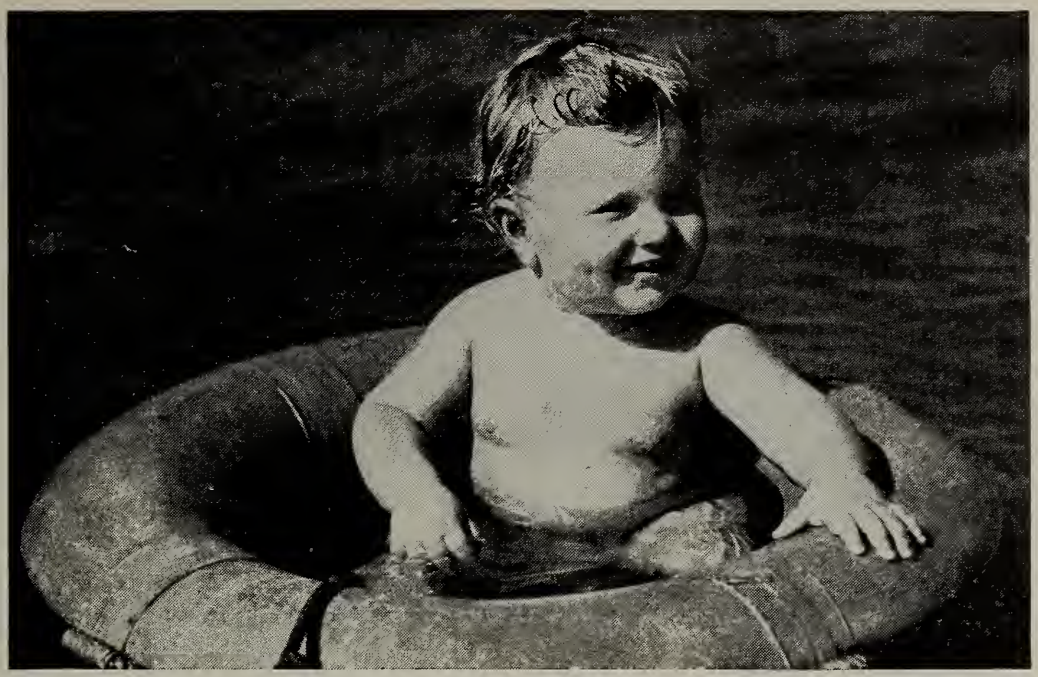
**COUNTY SOCIETY MEETINGS**

*Berrien—Niles*—Wednesday, July 22, 1942—Program by the Michigan Tuberculosis Association.

*Genesee—Flint*—Wednesday, June 17, 1942—Annual Hurley Hospital Alumni Stag Day with golf and dinner at the Atlas Valley Country Club.

*Kent*—Grand Rapids—Thursday, June 18, 1942—Annual Doctor-Lawyer Picnic at the Kent Country Club.

*Oakland*—Harry Pool Farm—Wednesday, July 1, 1942—Annual Summer Frolic.

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# MICHIGAN MILITARY MEMBERS

Following is a list of Michigan doctors of medicine who have recently been commissioned in the Army or Navy of the United States, showing their rank and home address. Military addresses have not been given for obvious reasons. Additions or corrections to the list will be welcomed. Please mail any changes or additions to the Executive Office, 2020 Olds Tower, Lansing, Michigan. A supplementary list of those commissioned will be published in a future issue of THE JOURNAL.

*Allegan County*—Wilbur E. Dolfin, 1st Lt., Wayland.

*Alpena-Alcona-Presque Isle Counties*—Samuel H. Rutledge, Jr., 1st Lt., Rogers City.

*Bay-Arenac-Iosco Counties*—Samuel F. Horowitz, 1st Lt., Bay City; Howard T. Knobloch, Capt., Bay City; Walter R McDonnell, 1st Lt., Pinconning; Michael J. Medvezky, 1st Lt., Bay City; Dwight J. Mosier, Capt., Bay City; Stanley M. Pearson, 1st Lt., Bay City; R. B. Riley, 1st Lt., Bay City.

*Berrien County*—John G. Ruth, Capt., Benton Harbor.

*Calhoun County*—James E. Forsyth, Capt., Albion; F. L. Graubner, 1st Lt., Marshall; Tyre K. Jones, Capt. Marshall; Lawrence A. LaPorte, 1st Lt., Battle Creek; Donald B. Morrison, Capt., Tekonsha; Clifford B. Taylor, Capt., Albion.

*Cass County*—John K. Hickman, Capt., Dowagiac.

*Chippewa-Mackinac Counties*—Wm. G. Birch, 1st Lt., Sault Ste Marie.

*Eaton County*—B. Philip Brown, Capt., Charlotte; D. S. Carothers, 1st Lt., Charlotte; E. F. Imthum, Capt., Grand Ledge.

*Genesee County*—Chester H. Adams, Capt., Grand Blanc; Nelson A. C. Andrews, Capt., Flushing; Geo. E. Anthony, Capt., Flint; Lawrence G. Bateman, 1st Lt., Flint; Henry K. Baker, 1st Lt., Flint; Robert M. Bradley, Capt., Flint; Wm. W. Bruce, 1st Lt., Swartz Creek; Geo. V. Conover, Lt. Commander, Flint; Glenn E. Drewer, Lt. (s.g.), Flint; Maynard Farhat, Capt., Flint; Theo. Finkelstein, 1st Lt., Flint; Harvey T. Fuller, Capt., Mt. Morris; Edwin F. Gray, Capt., Flint; Julius J. Gutow, 1st Lt., Flint; Harold H. Hiscock, Lt. Commander, Flint; Robert A. Huber, 1st Lt., Flint; Frank D. Johnson, Major, Flint; Edward Kaleta, 1st Lt., Flint; Lewis D. Kaufman, 1st Lt., Flint; Reuben H. McArthur, 1st Lt., Clio; Richard L. Rapport, 1st Lt., Flint; Charles J. Scavarda, Capt., Flint; Maurice J. Smith, 1st Lt., Flint; Carvey G. Walcott, Lt. (s.g.), Fenton; Gordon L. Willoughby, Capt., Flint.

*Grand Traverse-Leelanau-Benzie Counties*—Franklin R. Black, 1st Lt., Traverse City.

*Hillsdale County*—A. A. Sandor, 1st Lt., Hillsdale.

*Ingham County*—Wm. E. Clark, 1st Lt., Mason; Geo. R. Clinton, 1st Lt., Mason; Donald J. Drolett, 1st Lt., Lansing; Lawrence A. Drolett, 1st Lt., Lansing; J. F. Harrold, Capt., Lansing; Gordon H. Heald, 1st Lt., Lansing; Wm. H. Kelly, Capt., Lansing; Robert J. Mc. Gillicuddy, Capt., Lansing; Irving E. Silverman, 1st Lt., Lansing; Ralph H. Silverman, 1st Lt., Lansing; Ralph H. Sullivan, Jr., 1st Lt., Lansing.

*Ionia-Montcalm Counties*—Victor F. Kling, 1st Lt., Ionia; Milton E. Slagh, 1st Lt., Saranac; Jacob Van Loo, 1st Lt., Belding.

*Jackson County*—F. W. Bartholic, Capt., Jackson; Edward P. Cawley, 1st Lt., Jackson; J. M. Edmonds, Capt., Horton; R. J. Hanna, Major, Jackson; John B. Holst, 1st Lt., Jackson; Edward C. Lake, 1st Lt., Jackson; J. E. Ludwick, Lt. Commander, Jackson; Herbert B. McLauthlin, 1st Lt., Jackson; Robert J. Meade, 1st Lt., Jackson; J. L. Miller, 1st Lt., Jackson; Bernard M. Murphy, Capt., Jackson; Edward G. Seybold, 1st Lt., Jackson; Alfred M. Sirhal, 1st Lt., Brooklyn; W. A. Southwick, 1st Lt., Jackson; Sam Sugar, 1st Lt., Jackson; Myron V. Susskind, Capt., Jackson; Cecil E. Tate, 1st Lt., Jackson; Frederick I. Van Wagnen, 1st Lt., Jackson; Edward E. Vivirski, 1st Lt., Jackson.

*Kalamazoo County*—Walter E. Chase, 1st Lt., Kalamazoo; Kenneth L. Crawford, Capt., Kalamazoo; B. J. Dowd, 1st Lt., Kalamazoo; Paul M. Fuller, Capt., Kalamazoo; Howard Jackson, Lt. (s.g.), Kalamazoo; Wm. R. Kavanaugh, 1st Lt., Kalamazoo; Harold A. Machin, 1st Lt., Kalamazoo; Don Marshall, Major, Kalamazoo; Milton Okun, 1st Lt., Kalamazoo; Ralph Shook, Capt., Kalamazoo; Maynard Southworth, 1st Lt., Schoolcraft; M. B. Sofen, 1st Lt., Kalamazoo; Martin Verhage, 1st Lt., Kalamazoo; John Volderauer, Capt., Kalamazoo.

*Kent County*—Gordon W. Balyeat, Lt. (j.g.), Grand Rapids; Fred C. Brace, 1st Lt., Grand Rapids; Oliver R. Buesing, 1st Lt., Grand Rapids; Wm. J. Cosgrove, Capt., Grand Rapids; Clarence J. DeBoer, 1st Lt., Grand Rapids; Guy Wm. DeBoer, Capt., Grand Rapids; Kenneth E. Fellows, Capt., Grand Rapids; Wm. Haeck, 1st Lt., Grand Rapids; M. J. Holdsworth, Capt., Grand Rapids; Fred M. Jameson, 1st Lt., Grand Rapids; J. Duane Miller, Lt. Commander, Grand Rapids; Harold C. Mitchell, Major, Grand Rapids; Richard Mouw, 1st Lt., Grandville; Edward Y. Postma, 1st Lt., Grand Rapids; Abraham Pott, Capt., Grand Rapids; Donald M. Schuitema, Capt., Grand Rapids; Ray E. Sculley, Capt., Grand Rapids; John S. Sluyter, 1st Lt., Grand Rapids; Ray Vander Meer, 1st Lt., Grand Rapids; Albert Van't Hof, 1st Lt., Grand Rapids; Jerome E. Webber, Lt., (s.g), Grand Rapids.

*Lenawee County*—I. J. Beebe, 1st Lt., Morenci; Warren V. Hinshaw, 1st Lt., Onsted; Harris D. Iler, 1st Lt., Clinton; Arthur S. Pasternacki, Capt., Adrian; Geo. H. Wynn, 1st Lt., Adrian.

*Macomb County*—P. T. Mulligan, Capt., Mt. Clemens; Joseph J. Reichman, 1st Lt., Mt. Clemens.

*Marquette-Alger Counties*—Henry A. Hanelin, 1st Lt., Marquette; Warren C. Lambert, Lt. (s.g.), Marquette; O. I. Neimi, 1st Lt., Marquette.

*Muskegon County*—Arthur L. Benedict, 1st Lt., Muskegon; Frank Diskin, Capt., Muskegon; Norman A. Fleishman, 1st Lt., Muskegon; Thomas J. Kane, 1st Lt., Muskegon; Marvin B. Meengs, 1st Lt., Muskegon; Bertram W. Morse, Capt., Whitehall; H. Clay Tellman, 1st Lt., Muskegon.

*Medical Society of North Central Counties*—Douglas B. McDowell, 1st Lt., West Branch.

*Northern Michigan*—Mark Giffords, 1st Lt., Charlevoix; Joseph A. Winter, 1st Lt., Cheboygan.

*Oakland County*—Joseph W. Christie, Capt., Pontiac; Edward J. Dobski, 1st Lt., Sylvan; Donald J. Francis, 1st Lt., Pontiac; E. H. Lass, 1st Lt., Oxford; Daryan A. Moosman, 1st Lt., Pontiac; Joseph I. Nosanchuk, 1st Lt., Pontiac; John B. Schoenfeld, Capt., Pontiac; Earle W. Spohn, Capt., Royal Oak.

*Oceana County*—Walter Lemke, Lt. (s.g.), Shelby; W. Gordon Robinson, 1st Lt., Hart.

*Ottawa County*—Fred DeYoung, 1st Lt., Spring Lake; Kenneth N. Wells, 1st Lt., Spring Lake.

*Saginaw County*—Peter R. Chisena, 1st Lt., Bridgeport; Robert Heavenrich, 1st Lt., Saginaw; Homer A. Phillips, 1st Lt., Saginaw; Harry G. Richter, Lt. (s. g.), Saginaw; Frank R. Schultz, 1st Lt., Saginaw;

*(Continued on Page 626)*

The "Catoptrum Microcosmicum" is one of the most beautiful and rarest of medical works. This volume by Johann Remmelin, published in 1619, contains fascinating anatomical drawings with superimposed sections. Only three or four copies of the book are known to exist.

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*(Continued from Page 624)*

Aaron C. Stander, 1st Lt., Saginaw; Geo. W. Stewart, 1st Lt., Saginaw.

*St. Joseph County*—Aben Hoekman, Capt., Constantine; Arvid G. Holm, 1st Lt., Three Rivers; Fred J. Raisch, 1st Lt., White Pigeon; R. D. Zimont, 1st Lt., Constantine.

*Shiawassee County*—John M. Brandel, 1st Lt., Owosso; Herbert J. Kaufman, 1st Lt., Owosso.

*Van Buren County*—Avison Gano, 1st Lt., Bangor; Edward J. Hall, Capt., Hartford; Willis A. Hasty, 1st Lt., Gobles; Joseph W. Iseman, Capt., Paw Paw; Chas. Ten Houten, Capt., Paw Paw.

*Washtenaw County*—James B. Craig, Capt., Ann Arbor; Neil A. Gates, Jr., 1st Lt., Ann Arbor; Martin List, 1st Lt., Ann Arbor; Harry A. Lusk, 1st Lt., Ann Arbor; Robert R. Scott, Capt., Ypsilanti; Edwin M. Wright, 1st Lt., Dexter.

*Wayne County*—Benjamin Barenholtz, 1st Lt., Detroit; Louis L. Barnett, Capt., Detroit; Howard R. Bergo, Lt. (s.g.), Detroit; Robert J. Bernucci, Capt., Detroit; John O. Boyd, Jr., 1st Lt., Detroit; Geo. T. Britton, 1st Lt., Detroit; Harry E. Carnes, 1st Lt., Detroit; Henry R. Carstens, Colonel, Detroit; George M. Childs, Capt., Detroit; James Y. Clarke, 1st Lt., Detroit; Louis E. Doerr, 1st Lt., Detroit; Samuel G. Epstein, 1st Lt., Detroit; Meryl M. Fenton, Capt., Detroit; Matthew J. Gill, 1st Lt., Dearborn; Samuel M. Gingold, 1st Lt., Detroit; Howard H. Gradis, 1st Lt., Detroit; Briant B. Guerin, 1st Lt., Detroit; Meyer A. Gutterman, 1st Lt., Detroit; Thomas L. Hackett, 1st Lt., Detroit; Louis E. Heideman, 1st Lt., Detroit; John P. Heinke, 1st Lt., Detroit; Herbert H. Holman, Capt., Detroit; Arthur R. Hummel, 1st Lt., Detroit; Thomas D. Johnson, 1st Lt., Detroit; Walter A. Kaplita, 1st Lt., Detroit; Frank J. Kelley, Capt., Detroit; Sumner B. Kingsley, 1st Lt., Detroit; Sander P. Klein, 1st Lt., Detroit; Adam W. Kossayda, 1st Lt., Detroit; Simon Kove, Capt., Detroit; Robert Kuhn, 1st Lt., Highland Park; Chas. G. Johnston, Lt. Commander, Detroit; Wm. A. Lange, Capt., Detroit; Nichlos D. McGlaughlin, 1st Lt., Wyandotte; Charles J. McKenna, Capt., Detroit; Jerry H. McNickle, 1st Lt., Detroit; Harry E. Merritt, 1st Lt., Detroit; Harold K. Merselis, 1st Lt., Detroit; Lewis Meyers, 1st Lt., Detroit; Karl L. Miller, Capt., Detroit; Rowland L. Mindlin, Capt., Detroit; Leslie Pensler, 1st Lt., Detroit; Jack Rom, Capt., Detroit; Stanley J. Roman, Capt., Detroit; Harold E. Runde, 1st Lt., Detroit; John J. Sauk, 1st Lt., Detroit; Henry Siegel, Capt., Detroit; Joseph Slutzky, 1st Lt., Detroit; Edward D. Spalding, Lt. Colonel, Detroit; Lawrence L. Stocker, 1st Lt., Detroit; Martin E. Strand, 1st Lt., Dearborn; Sigismund C. Szabunia, 1st Lt., Hamtramck; Irvan M. Ward, 1st Lt., Detroit; Franklin L. Watters, 1st Lt., Highland Park; John H. Wax, Capt., Detroit; Joseph A. Witter, Capt., Detroit; Edward S. Zawadski, 1st Lt., Detroit.

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## MICHIGAN MEDICAL SERVICE

As of June 30, 1942, there were 422,403 subscribers enrolled in Michigan Medical Service. During the first five months of 1942, there was a severe employment dislocation because of the conversion of industry to war production. More than 125,000 persons enrolled in Michigan Medical Service lost more than one pay period, and over 75,000 persons enrolled in Michigan Medical Service lost two or more pay periods. Of these people who were not on the pay roll and for whom no deductions could be made, 84 per cent continued their certificate in effect by making direct payment either at the plant or at the district offices of Michigan Medical Service.

In an attempt to establish an index of the decrease in enrollment to be expected during periods of unemployment, a study was made of the Chrysler group. Seventy-five per cent of those temporarily off the pay roll in this group continued their certificate in effect. The enrollment in this group, however, dropped only 10 per cent, indicating that a much higher percentage of those with family coverage continued their certificate in effect and that those who dropped the coverage were, for the most part, single men.

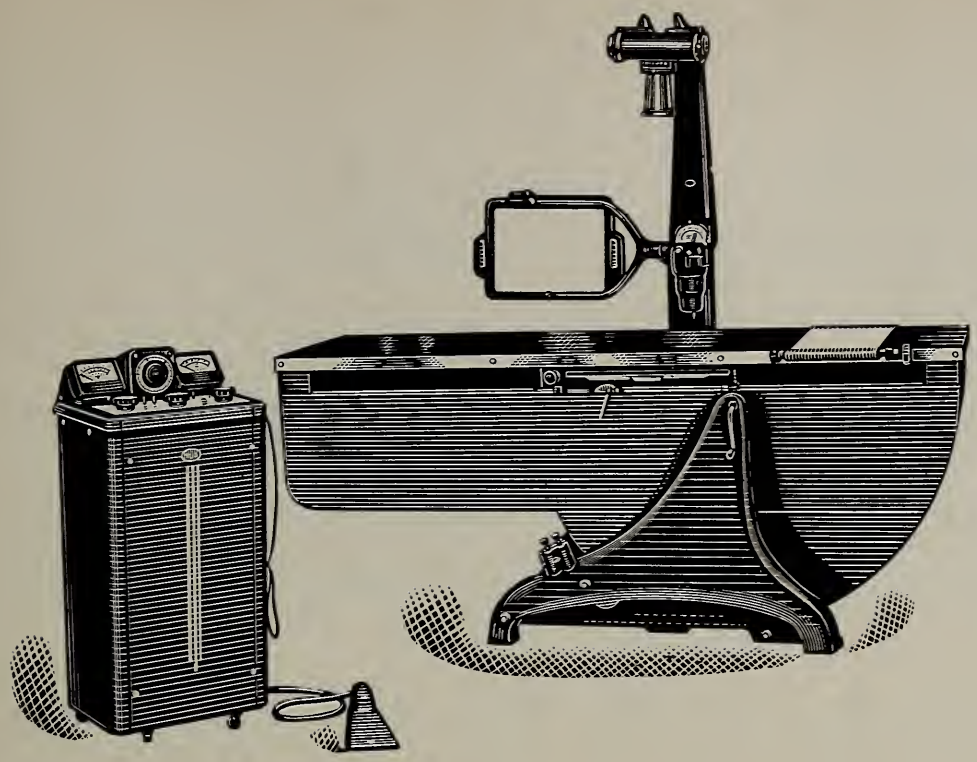
The increase in rates was approved by the Insurance Commissioner to become effective May 15. These rates will bring an increase of 25 per cent in the income of Michigan Medical Service. The basic rates are as follows:

| | |
|---|---|
| Individual | $0.60-$0.90 |
| Self and spouse | 1.60 |
| Self, spouse and dependent children | 2.25 |

The June accounting revealed that during the first six months of 1942 a total of $1,183,890.90 was paid by Michigan Medical Service in the form of benefits to doctors of medicine. These payments were distributed as follows:

| | |
|---|---|
| January | $ 217,501.35 |
| February | 113,404.15 |
| March | 171,297.75 |
| April | 226,350.05 |
| May | 223,890.50 |
| June | 231,447.10 |
| | $1,183,890.90 |

Payments in 1940 were $172,115.00; during 1941, $790,733.30; thus a total of $2,146,739.20 has been paid to doctors of medicine up to June 30, 1942.



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## THE USE AND ABUSE OF THE BARBITURATES

The laity knows too much about the action of the barbiturates as sedatives, therefore a law should be enacted in every state prohibiting the sale of these drugs over the counter. Also to prevent abuse of his prescription, the practicing physician should forbid the refilling of it.

It is an excellent drug for inhibiting convulsions as in strychnine poisoning, tetanus, and status epilepticus. Pediatricians use phenobarbital to allay spasms in children and to quiet a fretful crying baby. In such practice there is certainly a misuse of this drug.

The average dose used to produce sleep does not depress the respiration, but large doses especially such as may produce poisoning, cause death by respiratory failure. Overdoses of barbiturates affect the secretion of urine directly through the circulation, causing an oliguria and anuria. Since urine is the most important avenue for the excretion of these drugs, an anuria delays recovery.

Those destroyed by the liver are the short acting barbiturates. It is known that individuals with impaired hepatic function have remained deeply anesthetized for long periods of time from a hypnotic dose of evipal, which in a normal person would cause an anesthesia for only fifteen minutes. Consequently we are warned that barbiturates which depend upon the rapid destruction by the liver for their short action, should not be given to individuals with hepatic disease. Barbiturates should not be given in carbon tetrachloride poisoning, as this solvent itself damages the organ and it is adding insult to injury in this case because an impaired liver is unable to detoxify these drugs as efficiently as when normal.

The therapeutic dose does not cause death, but when fifteen times the ordinary hypnotic dose has been absorbed, the patient's life is in danger. In acute barbital poisoning, nothing characteristic is seen grossly at the postmortem.—William D. McNally, M.D., Chicago, Illinois. (See page 635).

## TUMOR OF ADRENAL CORTEX IN A GIRL OF FIFTEEN MONTHS

Parents noted enlarging abdomen and growth of pubic hair at age of six months. General growth and development was increased over normal so that the child appeared at least a year older than her actual age. Facies coarse and hair on body and face followed male distribution. Clitoris hypertrophied to resemble a penis. Tumor of left adrenal weighing 520 grams removed, death from surgical shock.

Pathological diagnosis—carcinoma of adrenal cortex with masculinization.—Rockwell M. Kempton, M.D., and Oliver W. Lohr, M.D., Saginaw, Michigan. (See page 643).

## BORIC-BUTYN-PETROLATUM GAUZE TREATMENT OF BURNS

General treatment of burns consists of the combating of shock, relief of pain, alleviation of fluid, plasma deprivation and optional sulfonamide medication. The local treatment consists of debridement, thorough cleansing, protection of denuded area, application of antiseptics and local anesthetics. Statistics indicate that regardless of the local treatment, coagulation or otherwise, the mortality rate is uniform, and that generally the lowered mortality is the result of the general treatment, primarily plasma and whole blood transfusions. Several case histories are presented of patients sustaining second and third degree burns that have been treated with the boric-butyn-petrolatum gauze.

Preparation is made by autoclaving 40 strips of gauze, 3x15 inches, covered by 2 ounces of saturated boric acid, 1 ounce butyn (2 per cent), and sufficient petrolatum to cover. This is applied in strips of 1 layer thickness and a sterile dressing is superimposed. A redressing is done every 2-3 days, washing the burn with tepid saturated boric solution and reapplying the medication.

No extensive conclusions are intended. This prepared gauze shows definite promise of being an efficient preparation.—Kenneth Hughes, M.D., Flint, Michigan. (See page 653).

## CHILD HEALTH IN THE NATIONAL DEFENSE PROGRAM

In a general way we can say that child health in a national defense program calls for no particular new measures over those of the peacetime program, except for adequate plans for the evacuation of children in case of actual warfare with bombing attacks, or invasion should take place. This you may be interested to know is also the viewpoint of the Canadian physicians involved in their national defense program with whom I discussed the matter a few weeks ago. What is needed is the extension of our programs to meet the needs created by our increasing industrial and military expansion for defense. With this the intensification of our peacetime efforts so that our children of today will be both

*(Continued on Page 630)*

## SAFE, CONVENIENT, when mother and baby must travel

The mother has only to measure out and place in dry, sterile feeding bottles, the prescribed amount of Similac powder for each individual feeding. The bottles containing the measured Similac powder are then capped, and can be conveniently carried, along with a thermos bottle of boiled water cooled to about blood heat. At feeding time it is necessary only to pour into one of the bottles containing the measured Similac powder, the prescribed amount of water, then shake until the Similac is dissolved, place a nipple on the bottle, and feed.

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physically and emotionally fit to meet the problems they must face in the years to come. No one can foresee the adjustments to living and the way of life as we have known it in the past two decades that will be necessary, but that they will be profound is beyond question.

We can be certain that the present emergency will give a marked stimulus to child health programs as national emergencies have done in the past. The same or similar measures which have been employed to develop a physically fit army, emotionally conditioned to wage a destructive warfare with the ideology of barbaric conquest, can, I believe, be used to create an equally efficient youth in our nation from a physical standpoint, but imbued with an ideology of the rights of man and the ideals of a democracy. This is the problem of child health in our national defense program.—Borden S. Veeder, M.D., St. Louis, Missouri. (See page 656).

## CHEMICAL INJURIES OF THE EYES

There is a long list of chemicals causing reported injuries to the eyes. These chemicals are varied in nature and cover many industries. Diagnosis of the injury is usually easy. The prognosis and treatment are not.

Irrigation of the eyes with water voluminously is paramount in treatment; neutralization of chemicals, questionable. Treatment after the first day of injury is a thing left undiscussed in the literature; these succeeding days are filled with sequelæ and complications; viz., secondary slough of tissues, conjunctival and corneal chemosis, corneal ulceration, chemical iritis, secondary purulent conjunctivitis, symblepharon, deep skin burns with ectropion and entropion, residual corneal scars, wild hairs, recurrent corneal erosions and less common changes.

Special problems exist for such substances as tear and other war gases, hot tar burns, lime burns, hydrogen sulfide exposures, sulfur dioxie refrigerants. Lastly contact dermatitis is often manifested about and in the eyes. Differential diagnosis from atopic eczemas is given.—Melvin H. Pike, M.D., Midland, Michigan. (See page 661).

## Michigan Physicians at A.M.A. Meeting

*Two hundred and six Michigan physicians* registered at the 1942 Annual Convention of the American Medical Association in Atlantic City, June 8 to 12, despite the war, gas rationing and other hindrances. Those registered on Monday were reported in the July issue. Following are those registered on Tuesday, Wednesday and Thursday:

*Tuesday:* Ashley, L. Byron, Detroit; Atchison, Russell M., Northville.

Baltz, James I., Detroit; Beaton, Colin, Detroit; Bogart, Leon M., Flint; Broudo, Philip H., Detroit; Burton, DeWitt T., Detroit.

Chandler, Donald, Grand Rapids; Cooper, J. E., Battle Creek; Corbett, John J., Detroit; Curry, George J., Flint; Curtis, Arthur C., Ann Arbor.

D'Alcorn, Ernest N., Muskegon; deAlvarez, Russell R., Ann Arbor; Danforth, M. E., Detroit; Donaldson, Sam W., Ann Arbor; Doub, Howard P., Detroit; Dubnove, Aaron, Detroit.

Elliott, H. B., Flint.

Fisher, O. O., Detroit; Ford, Walter D., Detroit; Freyberg, Richard H., Ann Arbor; Fralick, F. Bruce, Ann Arbor.

Gariepy, Louis J., Detroit.

Hall, W. E. B., Port Huron; Harm, Winfred B., Detroit; Hartman, Frank W., Detroit; Heide, E. C. Vonder, Detroit. Hodgkinson, C. P. Detroit.

Jarre, H. A., Detroit; Jennings, Alpheus F., Detroit.

Kuhs, Milton L., Kalamazoo.

Lamberson, Frank A., Detroit; Lepard, Cecil W., Detroit; Lockwood, Bruce C., Detroit.

McColl, Clarke M., Detroit; Mackersie, W. G., Detroit; McKean, G. Thomas, Detroit; Martin, Edw. G., Detroit; Morton, John B., Detroit; Mast, Wesley H., Petoskey; Meengs, Jacob E., Grand Rapids; Meyers, Solomon George, Detroit; Miller, Ernest B., Manistee; Morrow, R. J., Lansing; Moss, N. H., Detroit; Murphy, John M., Detroit.

Nesbitt, William E., Alpena; Nunemaker, John Coleman, Ann Arbor.

Payne, C. Allen, Grand Rapids; Pollard, H. Marrin, Ann Arbor.

Robb, Herbert F., Belleville; Rogin, James R., Detroit; Rosefield, John L., Detroit.

Saltonstall, Gilbert B., Charlevoix; Sandweiss, David J., Detroit; Sawyer, Harold F., Detroit; Secord, Eugene Wm., Detroit; Sladek, E. F., Traverse City; Smyth, Charley J., Eloise; Somers, Donald C., Detroit; Spoehr, Eugene L., Ferndale; Stevens, Rollin H., Detroit; Stull, H. Tuttle, Lansing.

Teifer, Chas. A., Muskegon; Thalner, L. F., Jackson.

Vandeventer, V. H., Ishpeming.

Wilson, Walter J., Sr., Detroit; Wolters, Simon L., Fort Brady.

Zielinski, Chas. J., Detroit.

*Wednesday:* Bandy, F. C., Sault Ste Marie; Beernink, E. H., Grand Haven; Branch, Hira E., Flint.

Droste, James C., Grand Rapids.

Heath, Parker, Detroit; Heath, Leonard P., Detroit.

Jahsman, William E., Detroit.

Kinde, M. R., Battle Creek; Kolvoord, T., Battle Creek.

Marcovich, Abraham W., Paw Paw; Mateer, John G., Detroit; Miley, Hugh Howard, Detroit; Miller, Norman F., Ann Arbor; Monts, Raymond W., Detroit.

Nesbit, Reed M., Ann Arbor; Noordewier, Albert, Grand Rapids.

Pino, Ralph H., Detroit; Pio Foa, Piero, Ann Arbor.

Ratigan, Carl S., Dearborn; Rothman, Emil D., Detroit.

Seeley, Ward F., Detroit; Sladen, Frank J., Detroit; Snyder, L. M., Lansing.

Walls, Arch, Detroit.

*Thursday:* Babcock, Warren W., Detroit; Bell, Wm. M., Detroit.

Campbell, Duncan, Detroit.

Denison, Louis L., Detroit; Duane, Beam A., Grosse Pointe.

Nicholson, John B., Marquette.

Reynolds, Roland P., Detroit; Robb, J. M., Detroit.

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## RESTRICTIONS ON QUININE

The War Production Board has issued a conservation order affecting quinine and cinchona preparations. Physicians and pharmacists are advised that quinine or quinine salts and cinchona preparations are to be used only for the treatment of malaria fever and are to be dispensed for this purpose only upon a physician's prescription. Quinine may be used also for making urea or quinine hydrochloride.

Wholesale druggists and retail pharmacists will not be allowed to purchase the above-mentioned products in quantities greater than 50 ounces. If your pharmacist is refusing to fill prescriptions for these drugs unless they are being used for the treatment of malarial fever, or, in the case of the exception, for making of urea and quinine hydrochloride, he is following the orders of the War Production Board.—Roland T. Lakey, Dean, College of Pharmacy, Wayne University, Detroit, Michigan.

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154—Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 Proc. Soc. Exp. Biol. and Med., 1934, 32, 241 — N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592*

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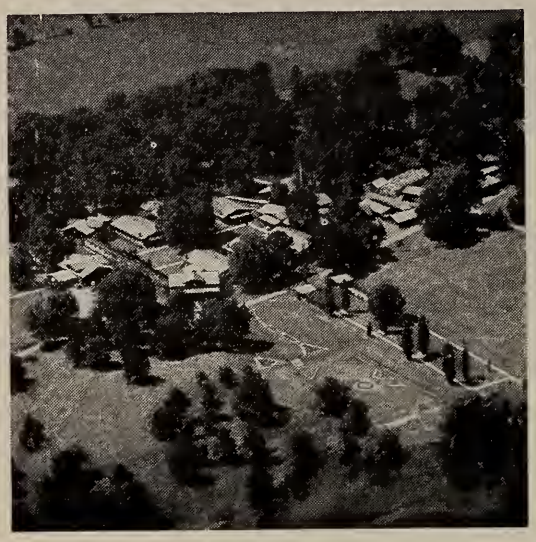

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## MEDICAL EXPLORERS

Not a few physicians who have traveled extensively have returned home to write of their explorations and thus to give pleasure and instruction to their fellow colleagues and many others. Some have set out on scientific missions, such as Mungo Park, the young Scottist surgeon, whose *Travels in the Interior Districts of Africa* (1799) may still be read as a thrilling account of individual adventure. Other famous doctors described their travels for pleasure. Two may be mentioned: Richard Bright's *Travels from Vienna through Lower Hungary* (1818), an account of a postgraduate tour, illustrated with Bright's original drawings, and Thomas Hodgkin's *Narrative of a Journey to Morocco* (1866), the story of a trip with his patient, Sir Moses Montefiore. To these two groups must be added a third, composed of those describing a vacation tour or a particular service with the Army or Navy. In this category would fall the well-known book by Oliver Wendell Holmes, *Our Hundred Days in Europe* (1887), and the fine account by the late Harvey Cushing entitled, *From a Surgeon's Journal* (1936).

The whole group of travel books by doctors extends into several thousand volumes. There have already been gathered in one library four or five hundred volumes, and many more are known. Doctors in general have added greatly to the knowledge of the world, and their reminiscences have been of much interest to their fellow colleagues. Few, however, have engaged in much more than the ordinary types of travel. Mungo Park would be considered an explorer of the first class, as would the American, Elisha Kent Kane, who visited the Artic.

At the present time there must be added to these individuals the name of Richard Upjohn Light, who in the last ten years has made two unusual trips by aeroplane, accounts of which have been published. The first one was a privately printed book, *Journal of a Seaplane Cruise Around the World, August 20, 1934, to January 24, 1935* (1937). On this trip, Light, with Robert French Wilson as his radio operator, circumvented the globe by aeroplane, except for the trip across the Pacific from Manila to Vancouver. Thus he became the first American to fly from continental United States eastward to the Philippine Islands. His log of the journey was accompanied by his carefully drawn maps of the country over which he passed. He made many notes of particular medical interest, and one of his reports, after his visit to Labrador, was separately published in the October 25, 1934, issue of the *Journal.* In addition there are many notes in the book about medical conditions in Greenland and accounts of his visits to various hospitals in Europe. This journey, taken seven years ago, was a pioneer effort in exploration by aeroplane and was widely recognized by geographers as a trip of unusual importance. Following this exploration, Light was made a member of the American Geographical Society and later was elected a councilor of that distinguished scientific body.

Under the auspices of the American Geographical Society, Light has now published his account of another aeroplane trip, this time over Africa. A review of the extraordinary book appears in this issue of the *Journal.* His account is a fitting climax to an unusual career in the air, which began in 1930. Light flew over Central America in 1932; later he photographed parts of the Rocky Mountains from Vera Cruz to Mexico northward to Salt Lake City. His trip around the world in 1934-1935 has already been mentioned. In 1937-1938, prior to the trip across Africa, Light and his wife flew westward across North America, southward through Mexico and Central America, then eastward across South America to Rio de Janeiro. During this decade, Light has become the outstanding physician of his time in the world of aerial exploration.—*The New England Journal of Medicine,* July 17, 1941.



*Say you saw it in the Journal of the Michigan State Medical Society*

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

Volume 41 August, 1942 Number 8

# The Use and Abuse of the Barbiturates*

By Wm. D. McNally, A.B., M.D.

Cook County Coroner's Chemical Laboratories
Chicago, Illinois

William D. McNally, M.D.
*A.B., University of Michigan, 1905. M.D., Rush Medical College, 1920. Associate Professor, Materia Medica and Toxicology, Rush Medical College. Toxicologist to the Cook County Coroner. Lt. Col. Chem. Warfare Reserve Corps, U. S. A. Attending Toxicologist at Presbyterian, St. Joseph's Illinois Masonic and Children's Memorial Hospitals.*

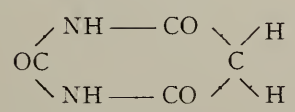
■ The discovery of the use of the barbiturates as sedatives is one of the great contributions to the armamentarium of the practicing physician. The importance of this class of drugs has been outshadowed in recent years only by the brilliant results obtained by the sulfanilamide group of drugs in the treatment of infections. There have been four outstanding discoveries made in the past thirty-seven years in the practice of medicine: (1) barbiturates (1903); (2) salvarsan (1907); (3) insulin (1922); (4) sulfanilamides (1935) first prepared by Hoerlein in 1909.

With each new discovery, whether it be mechanical as the motor-driven vehicle, electrical refrigeration or in medicine, we are confronted with resulting evils and abuses. We should not want to stop the manufacture of automobiles because many thousands are killed and hundreds of thousands are injured through their use, so neither should we want to stop the production of the barbiturates because some people choose to commit suicide by them, acquire the habit of using these drugs without the supervision of a physician, become allergic or develop skin manifestations.

Barbital, introduced under the trade name of veronal by Fisher and von Mering in 1903, was the first of the series of these drugs to become official in the U.S.P. and is still considered one of the best hypnotics. Over 1,500 kinds of barbiturates have been developed, but less than twenty have survived clinical use. The objection I have to the introduction of a new barbiturate is that the manufacturer usually places it under a confusing trade name, extolling its virtues as being far superior to anything yet produced concerning its potency, efficiency or shortness of action, margin of safety, and size of capsule or tablet. All of these claims are made by the manufacturer as being possessed only by his particular brand.

A combination of urea and malonic acid forms barbituric acid. Urea in itself is not a central depressant, but substitution products may have definite hypnotic powers. When urea is united with organic acid chlorides or esters, it forms ureides, which may be either mono- or di-ureides, barbituric acid being the most important example of the latter group from a pharmacological viewpoint.

Barbituric acid has two hydrogen atoms that can be replaced by various radicals giving birth to a host of new compounds.



If we replace the two H's by ethyl groups, we obtain diethyl barbituric acid (diethylmalonylurea) or barbital. If one of the ethyl groups is replaced by a phenyl group, we have the well-known phenobarbital. In this connection a new series of barbiturates have been obtained by the substitution of sulfur for the oxygen of the

*Presented before the Wayne County Medical Society, December 8, 1941.

TABLE I. BARBITURATES AVAILABLE FOR CLINICAL USE

| Barbiturate | Status | Chemical Name | Average Adult Hypnotic Dose |
|---|---|---|---|
| | | | Gm. |
| Alurate | N.N.R. | Allylisopropyl-barbituric acid | 0.065-0.13 |
| Amytal | N.N.R. | Isoamylethyl-barbituric acid | 0.1-0.3 |
| Barbital | U.S.P. B.P. | Diethylbarbituric acid | 0.3-0.5 |
| Dial | ..... | Diallylbarbituric acid | 0.1-0.3 |
| Evipal | ..... | N-methylcyclo-hexenylmethyl barbituric acid | 0.25-0.4 |
| Ipral Calcium | N.N.R. | Calcium ethyliso-propylbarbiturate | 0.12-0.25 |
| Neonal | N.N.R. | n-Butylethyl-barbituric acid | 0.05-0.1 |
| Nostal | N.N.R. | Isopropyl-$\beta$-bromallyl barbituric acid | 0.1-0.3 |
| Ortal Sodium | N.N.R. | Sodium n-hexylethyl barbiturate | 0.2-0.4 |
| Pentobarbital Sodium (Nembutal) | U.S.P. | Sodium ethyl (1-methylbutyl) barbiturate | 0.1-0.2 |
| Pernoston | N.N.R. | 1-methylpropyl-$\beta$-bromallyl barbituric acid | 0.2 |
| Phenobarbital | U.S.P. B.P. | Phenylethyl-barbituric acid | 0.1-0.2 |
| Pentothal Sodium | N.N.R. | Sodium ethyl (1-methylbutyl) thiobarbiturate | ..... |
| Phanodorn | N.N.R. | Cyclohexenylethyl barbituric acid | 0.1-0.2 |
| Sandoptal | N.N.R. | Isobutylallyl barbituric acid | 0.2-0.4 |
| Seconal | ..... | Sodium allyl (1-methylbutyl) barbiturate | 0.1-0.2 |
| Thioethamyl | ..... | Sodium isoamyl ethyl thio-barbiturate | ..... |

urea carbon atom. These new compounds are known as thiobarbiturates. In Table I there are given the trade names, the average adult hypnotic dose, the status of the drug whether it is an N·N.R. or a U.S.P. preparation, and a few commonly employed barbiturates which have not been accepted by the Council on Pharmacy and Chemistry.

### Action

The medicinal use of the barbiturates is chiefly for the depression of the central nervous system. As previously stated, the various types of barbiturates differ principally in the dosage in which they are effective, the speed of action and duration of their hypnotic effects. The degree of sedation can be from that of a light sleep to a deep coma. With adequate oral doses, sleep usally ensues in twenty to sixty minutes. In some instances, a barbiturate may cause restlessness, the reflex stimulation being influenced by a number of factors such as pain, age, fever, thyroid disease or toxemia. To overcome reflex excitability, barbiturates are used for preanesthetic medication, producing a sound sleep the night before a surgical operation.

The barbiturates are capable of inhibiting convulsions as in strychnine poisoning, tetanus, and status epilepticus. In the latter condition, phenobarbital is the drug of choice because the other barbiturates do not possess its selective action upon the motor cortex.

Pediatricians use phenobarbital to allay spasms in children and sometimes even to quiet a fretful crying baby. In such practice there is certainly a misuse of this drug. It is so easy to give the crying baby ¼ grain of phenobarbital, to tell the mother that if the baby cries again she can give him another tablet, and if necessary, she can have the prescription refilled. How much better it would be if we physicians made an effort to find out first whether the mother herself is not to blame for the crying of the baby and whether or not he has been neglected, rather than taking the easier way, that of administering a sedative. Some mothers are too easily annoyed by the crying of their babies. And, there may be reasons associated with the mother's own life, perhaps she is very nervous because she is an inveterate smoker of cigarettes, likes to attend cocktail parties, or gads about town in her automobile leaving the child in someone else's care.

Occasionally babies may be drugged through the mistake of a pharmacist. Probably the youngest individual in medical history to be poisoned by a barbiturate was an 8-pound baby who came under my observation in September of this

year. A physician wrote a prescription for 0.15 of a gram of sodium phenobarbital in 100 c.c. of distilled water, but instead the pharmacist dispensed 5.31 grams of the sodium phenobarbital. The infant was given three doses equivalent to 9.7 grains within eighteen hours to overcome spasms. The baby went into a deep coma with a subnormal temperature showing no reflexes. The coma lasted for three days even though 6 mg. of picrotoxin and 600 c.c. of a five per cent glucose had been administered. On the second and third days the diapers were collected and the phenobarbital extracted amounted to 0.49 grains. The child fortunately survived, and up to the present time has shown no unusual effects or symptoms, remaining apparently a normal youngster.

The average dose used to produce sleep does not depress the respiration, but large doses especially such as may produce poisoning, cause death by respiratory failure. Overdoses of barbiturates affect the secretion of urine indirectly through the circulation, causing an oliguria or anuria. Since urine is the most important avenue for the excretion of these drugs, an anuria delays recovery.

*Addiction.*—A great deal has been said about addiction to the barbiturates, but addiction in the same sense as with the opiates probably does not occur. Hambourger,[8] in 1940, reported that barbiturate addiction was fairly common accounting for approximately one-tenth of all cases of drug addiction reported in large cities. (One-third of this group developed a craving for the barbiturate when it was withheld, but none showed serious withdrawal symptoms, as is noted with the opiates). Stanton[21] states that a significant degree of tolerance does not develop from prolonged administration. This assertion was confirmed by Swanson and co-workers, who noted no evidence of tolerance, withdrawal symptoms or decreased toxicity after a six-month period of administration of amytal to dogs and monkeys. The possibility of drug addiction has been taken into consideration by the Food and Drug Administration which enforces its stipulation that the words "may be habit-forming," must be placed on all proprietary preparations containing a barbiturate. "The federal law declares a drug to be misbranded if it contains any quantity of barbituric acid, or any chemical derivative of such substance which has been by the Secretary, after investigation, found to be, and by regulations designated as, habit forming unless its label bears the name, quantity and proportion of such substance or derivative and in juxtaposition therewith the statement 'Warning—May be habit forming.' If the drug is dispensed on a physician's prescription it need not be so labeled, if the prescription is marked by the physician as not refillable or if its refilling is prohibited by law. If, however, the drug is dispensed in the course of the conduct of the business of dispensing drugs pursuant to diagnosis by mail it must be so labeled even though prescribed by a physician."

*Administration.*—Barbiturates may be given by the oral, rectal, subcutaneous or intravenous routes. The latter method is the most dangerous and should be used only in emergencies or for surgical anesthesia of short duration, as 50 to 70 per cent of the fatal dose is required to produce anesthesia. Why take chances when unnecessary accidents and death can be avoided. The value, danger, contra-indications and technique of administration of pentothal sodium, N. N. R., have been reviewed by Ruth, Tovell, Milligan and Charleroy.[17]

*Fate in Body.*—The fate of a new barbiturate depends upon its chemical structure; therefore we cannot predict from a chemical formula in what manner the drug will be changed or utilized by the body. Thiobarbiturates and barbiturates with complex cyclic radicals, such as evipal, are less stable and almost completely destroyed in the liver. Barbiturates with alkyl radicals are more stable being excreted as such in a larger percentage in the urine.

**Those destroyed in the liver are the short acting barbiturates. It is known that individuals with impaired hepatic function have remained deeply anesthetized for long periods of time from a hypnotic dose of evipal, which in a normal person would have caused an anesthesia for only fifteen minutes. Consequently we are warned that barbiturates which depend upon the rapid destruction by the liver for their short action should not be given to individuals with hepatic disease. Barbiturates should not be given in carbon tetrachloride**

poisoning, as this solvent itself damages the organ and it is adding insult to injury in this case because an impaired liver is unable to detoxify these drugs as well as when normal. One should also think twice before administering the short acting barbiturates to chronic alcoholics because of the additional burden to an already depleted organ. This same caution applies to those with kidney dysfunction. As will be mentioned later, barbiturates are eliminated by two routes, the liver and the kidneys. Those which escape destruction in the liver in varying degrees are eliminated in the urine. If, however, the kidneys fail to excrete the barbiturate, there is a cumulative toxicity, which occurs only too often in those who use this type of drug daily. To prescribe a barbiturate for such individual is to invite death, since a hypnotic dose is still detectable in the urine of a normal person nine days after ingestion.

Too frequently in our coroner's cases, we have found that relatively small doses have caused death from faulty elimination owing to kidney and liver dysfunction. Murphy and Koppanyi[15] using dogs, cats and rabbits with a severe experimental nephrosis, found that the animals did not recover from barbital and died in coma. Argy, Linegar and Dille[2] compared the excretion of barbital in patients with and without kidney disease and found that in the normal individuals 14 per cent of 1.12 gm. barbital was excreted within twenty-four hours, while patients with disease of the kidneys excreted only 6 per cent in the same period when given the same amount of the drug. They noticed also that barbital tended to cause oliguria in the latter group. Hirschfelder and Haury[9] in their experiments on nephrectomized rabbits showed that barbital and phenobarbital produced a prolonged anesthesia and depression ending in death.

The barbiturates classified on the basis of duration of their hypnotic action as long-acting are: alurate, barbital, dial, phenobarbital and ipral; as moderate in action: amytal, ortal, pentobarbital and pernoston; as short-acting: evipal and seconal; ultra-short-acting: (anesthetic doses given intravenously) evipal, pentothal, thioethamyl.

*Use in Obstetrics.*—Some obstetricians believe in administering enough barbiturate to obtain a partial anesthesia and analgesic effects, while others condemn their use entirely, claiming that they are prone to depress the fetal respiratory center, and that despite the favorable results reported for the use of pentobarbital in combination with various other agents in labor, approximately one-third of the babies in some series do not breathe immediately, whereas less than 2 per cent is the normal figure when no anesthesia is employed. The respiratory mechanism of the mother may also be affected adversely by the use of the barbiturates. Sheldon[19] concludes that doses producing more than sedation during labor should not be used. This is one branch of medicine in which there is considerable misuse of these drugs.

TABLE II. DEATHS FROM FOUR LEADING POISONS IN COOK COUNTY, ILLINOIS

| Year | Alcohol | Barbiturates | Carbon Monoxide | Carbolic Acid |
|---|---|---|---|---|
| 1931 | 16 | 9 | 161 | 27 |
| 1932 | 13 | 4 | 85 | 38 |
| 1933 | 21 | 15 | 107 | 38 |
| 1934 | 18 | 20 | 124 | 38 |
| 1935 | 6 | 12 | 156 | 31 |
| 1936 | 17 | 17 | 134 | 23 |
| 1937 | 11 | 30 | 105 | 28 |
| 1938 | 3 | 43 | 113 | 28 |
| 1939 | 5 | 37 | 112 | 29 |
| 1940 | 5 | 54 | 92 | 32 |

When the stress and strain of our war is over and the great inevitable economic depression follows, leaving in its wake victims of financial reverses, high taxes, et cetera, the resources of the nervous systems of our people will be fatigued to the utmost, the sequel of which will be insomnia and emotional and nervous instability, relief from which will be sought from the family physician. If the physician does prescribe some form of barbiturate, we shall subsequently see a rise in mortality and morbidity due to their increased use.

## Poisoning

As early as 1905, Kress reported a number of poisonings and since then the poisonings have rapidly increased in number. In Table II, I have

TABLE III. POISONINGS IN COOK COUNTY HOSPITAL 1938-1939

| In Order of Frequency | Total | Fatal | Per cent Mortality |
|---|---|---|---|
| Barbiturates | 184 | 12 | 6.5 |
| Iodine | 118 | 0 | 0.0 |
| Opium Alkaloids | 107 | 15 | 14.0 |
| Carbon Monoxide | 60 | 1 | 1.7 |
| Cresol, Lysol and Carbolic Acid | 66 | 10 | 15.1 |
| Mercury | 20 | 3 | 15.0 |
| Hydrochloric and Sulfuric Acids | 19 | 6 | 31.6 |
| Potassium permanganate | 18 | 0 | 0.0 |
| Lead | 17 | 1 | 5.9 |
| Arsphenamine | 13 | 2 | 15.4 |
| Arsenic | 12 | 2 | 16.7 |
| | 634 | 52 | 8.2 |

NOTE: Of 794 poisonings in 1938 and 1939, other items were less than eight cases per item. (From an unpublished manuscript by Dr. Richard Kohn Richards.)

given the number of deaths from the four leading poisons in Cook County for the last ten years. In the table it will be noted the marked increase from 1932 of four deaths to fifty-four deaths in 1940. From Table III it will be noted that barbiturate poisoning in the Cook County Hospital exceeded that of any other poison. This increase has been due partly to the ease with which the laity is able to purchase a barbiturate from the drug store. Owing to their widespread use chronic poisoning is quite common. It is hoped that with the legislation of twenty-seven states against the promiscuous use of the barbiturates, and through the enforcement, by the Food and Drug Administration, of its stipulation, as mentioned previously, we shall be able to eliminate or at least reduce to a minimum the danger from the indiscriminate use of these drugs.

Chronic poisoning is encountered where elimination is slow and cumulative toxic after-effects are manifested in mental and bodily weakness, tremors and dizziness.

Prescriptions should be marked "non-refillable" to prevent a patient from continuing the use of the sedative for longer than a week or ten days, as the general public is essentially unaware of the deleterious effects of these drugs, which may cause skin rashes as the less harmful result, and the more serious, depression, coma and death. It is, therefore, imperative that the barbiturates be prescribed only by the physician and that utmost caution be used in allowing refills.

Aubry[4] reports that the continued use of barbital and its compounds may produce a chronic intoxication, and in some cases a psychosis and mental deterioration. Beckman,[5] in 1930, stated, "This drug has become rather popular for suicidal purposes, being obtainable in relatively tasteless tablets that are sure in their effect if enough of them are taken." McGuigan,[11] in 1928, wrote that in cases of poisoning "the heart becomes weak and irregular. Cheyne-Stokes respiration develops and there may be pronounced cyanosis though death does not usually occur for twenty-four hours longer. With smaller doses from continued use, barbital may cause nephritis."

Work reported 100 cases of barbital poisoning seen at the Denver General Hospital and in his private practice. Ashworth[3] states "the mental inertia plus the disturbance of muscular incoordination stamps the barbital user as a person suffering from a toxic drug of a most serious nature." Bastedo, in 1932, reported that in Los Angeles sixty-one toxic cases were encountered in two years, while in New York there were seventy-six deaths in a ten-year period.

More than 1,200,000,000 grains of barbituric acid derivatives were sold in the United States in 1939, while in 1940 this quantity was doubled, 2,283,302,000 grains being sold. The total number of suicidal deaths by these drugs in the United States in 1936 was close to 300. In four years, from 1932 to 1936, the national incidence of suicides by barbiturates represents 4.2 per cent of all poisons except gas, in larger cities ranging from 2 to 16 per cent and 0.66 per cent of all methods used for suicide.[8]

### Absorption and Excretion

Absorption occurs readily from the intestinal tract, rectum, subcutaneous tissues and muscles. The speed of absorption varies with the different members of this group of drugs, the rate being slower for the long acting and more rapid for the short acting barbiturates. Barbiturates pass readily through the placenta and are distributed throughout the fetal tissues. There is danger

in the indiscriminate use of these drugs during delivery—babies have been born in a stuporous condition. Concentrations found in the brain are reported to be no higher than those found in other tissues.

The body possesses two paths of elimination, excretion in the urine and destruction by the liver. Barbiturates with short alkyl radicals are more apt to be stable while those having complex radicals, such as evipal, are less stable and are almost completely destroyed by the liver. Pentobarbital is almost completely destroyed by the liver in contrast to barbital, which is excreted largely unchanged in the urine. In cases of alleged poisoning the urine should be saved by the hospital, also at autopsy, and it should be placed in a clean bottle for chemical examination. These sedatives are eliminated slowly and as a barbiturate can be detected in the urine nine days after ingestion of a single hypnotic dose, the physician must know in what manner a particular one is excreted before he can prescribe it with safety. More care taken along this line will limit all cases of death from continued medication. When the renal function is disturbed the retained barbiturates may cause severe depression and symptoms of poisoning. Eight per cent is eliminated in the urine the first twelve hours, 20 per cent in twenty-four hours, and 35 to 65 per cent in forty-eight hours. Only traces are found in the feces. Approximately 90 per cent can be eliminated by the kidneys after small repeated doses, but after administration of large amounts, the percentage excreted decreases to as low as 50 per cent of the intake. According to Krautwald and Oettel[10] the elimination of the four common barbiturates is as follows:

| | |
|---|---|
| Veronal | 25 per cent unchanged diethyl barbituric acid. |
| Phenobarbital | 25 per cent unchanged with a metabolic combination product accounting for another 20 per cent. |
| Phanodorn | 2 per cent unchanged. |
| Noctal | 3 per cent unchanged. |

### Symptoms of Poisoning

The reflexes and pupillary reactions in the patient given the commonly average dose, are retained or slightly exaggerated; while in poisoning the pupils are dilated with normal or slightly delayed pupillary reaction. (In morphine poisoning the pupils are generally pin-point in size, becoming dilated shortly before death.) There may be spasmodic movements of the iris which is a favorable sign. The patient may also be cyanotic. An elevation of temperature may occur after the first day. The blood pressure may drop to 75 mm. Hg. systolic in serious cases, and the pulse may become very weak. Death, if it occurs early, is usually the result of paralysis of the respiratory center. If death is delayed, vasomotor collapse, pulmonary edema or hypostatic pneumonia may follow acute poisoning from overmedication and frequently results in the fatal issue. The latter result, however, is more apt to occur from the long acting barbiturates. Bronchopneumonia may occur in a patient who has regained consciousness. The prognosis depends upon the amount and the type of barbiturate ingested. The longer the patient survives the better his chance for living.

Curran[7] reports that barbituric acid compounds, when used in excess, cause a delirious, sometimes manic confusion. Moore and Gray[14] state that their use is attended by disorientation, speech disturbance, nystagmus, absent reflexes, tremors of the hands, disturbances in gait, and ataxia. Seymour[18] believes that some cases of barbiturate poisoning may assume features of the manic depressive psychosis; and that in order to make a differential diagnosis, one must consider injuries of the head, brain tumor, cerebral hemorrhage, diabetic coma, syphilitic meningitis, uremia, alcoholism, and encephalitis, Hambourger,[8] in a study of suicide between 1928 and 1937 in a number of urban communities, shows that 8.1 per cent of all persons using poisons chose barbiturates, and in 1.25 per cent of all methods reported, barbiturates were used for successfully committing suicide. Moore and Gray report that in the Boston Psychopathic Hospital between 1920 and 1932, 222 persons were admitted, who were believed to have a psychosis due to drugs or exogenous chemical poisons, which constituted 0.97 per cent of all admissions. Barbiturates and morphine (usually in combination with alcohol and other toxic substances) were those most used. Sixty-two and six-tenths per cent of the patients reported used these drugs. Alexander, Moore and Leary[1] show that for a period of ten years there was a gradual increase in the number of deaths due to barbiturates from seven in 1928 to twenty-five in 1937 for the state of Massachusetts. During this period they collected 152 cases out of 88,090 that came under observation.

### Treatment

When a patient suffering from barbituric acid poisoning is found at home in a coma, it is best to have him removed to a hospital for treatment.

At the hospital evacuate the patient's stomach with a stomach pump, washing it with potassium permanganate of a strength of about 1:3000. If difficulty is encountered in passing the tube due to trismus, introduce a duodenal tube through the nose. At least two people should hold the patient while the stomach or duodenal tube is being introduced. A rubber sheet should be placed over the bed and the physician attending the patient should wear a rubber apron to prevent soiling his clothing, as there is a regurgitation while the stomach is being pumped. If the patient's head is held to one side and lower than the stomach, the fluid can be usually siphoned without difficulty. If in the hospital, secretions accumulating in the patient's pharynx can be removed by suction. After the stomach is thoroughly washed, if the patient is cyanotic, oxygen should be administered by nasal catheter. While the stomach is being evacuated, the nurse may prepare and have in readiness, a hypodermic containing a 0.3 per cent solution of picrotoxin. One c.c. containing 3 mg. can be injected intravenously, fifteen to twenty minutes later another 3 mg. may be given. If the respiration improves, or if the patient attempts to make slight movements, 6 mg. may be sufficient. In cases of severe poisoning, however, it may be necessary to give up to 12 mg. Slight twitching of the face indicates that the optimum effects of the drug are being reached. Picrotoxin itself is a poison, with this in mind, the physician should have a rapidly acting soluble barbiturate such as sodium pentobarbital or sodium pentothal on hand and ready for intravenous injection if the patient has a convulsion.

Richards and Menaker[16] in a manuscript which is to be published advise that "if the patient remains in a state of stupor, particularly following a poisoning with the long-acting group of barbiturates, further high doses of picrotoxin administered at this stage may overstimulate the medullary centers and lead to convulsions. Metrazol is useful at this point for stimulation of the higher centers." In one case they administered as high as 1000 mg. of picrotoxin within four days, but the patient remained stuporous. "Further administration of small doses of picrotoxin resulted in slight muscular twitching without producing complete denarcotization. For this reason, a total of 10 c.c. metrazol in three divided doses was given at about five minute intervals. This led to considerable improvement. The patient responded to the calling of her name and even began to talk. After that it was easy to prevent relapse by small intramuscular doses of picrotoxin."

In the absence of picrotoxin, metrazol may be given intravenously at intervals until the desired effect is obtained. I have used strychnine sulfate hypodermically every hour until there was an increased reflex excitability with good results. Five per cent glucose is also excellent for elimination and to prevent pulmonary edema; 500 to 600 c.c. of the 5 per cent glucose may be given. As the barbiturates are eliminated in the urine, the patient should be catheterized twice in twenty-four hours. If the respiration is weak, give 7 to 10 per cent of carbon dioxide with oxygen. On the second or third day, the patient may have a high temperature even though the stethoscope or x-ray may fail to reveal pulmonary complications. If this temperature persists beyond the third day, a poor prognosis may be expected. If pulmonary edema occurs, give the patient intravenously an ampoule of salyrgan and 50 c.c. of 50 per cent glucose and administer oxygen.

*Fatal Dose.*—Wilcox[22] noted that in a number of instances 0.3 gm. (4.5 gr.) within twenty-four hours produced active poisoning. The minimal fatal dose of barbital by mouth for rabbits was found by Maloney and Tatum[13] to be 0.2 to 0.275 gm. per kilo; phenobarbital 0.15 to 0.172 gm. per kilo. Diallyl barbituric acid 0.12 gm. per kilo.[6] Swanson[20] found that the minimum lethal dose of these substances varies from 0.065 to 0.4 gm. per kilo of body weight using rats and dogs.

The therapeutic dose does not cause death, but when fifteen times the ordinary hypnotic dose has been absorbed, the patient's life is in danger. Death has followed less than 1 gm. (15 gr.), but recovery occurred after the ingestion of 18 gm.

### Postmortem Appearances

In acute barbital poisoning nothing characteristic may be seen grossly. Where life has been prolonged for several days, pulmonary edema, hyperemia, edema of the meninges, and hyperemia of the liver and kidneys have been reported.

The heart shows marked dilatation. Broncho-

pneumonia has been found in a number of cases.[12] The lesions in the brain are non-specific and resemble those produced experimentally by a variety of organic and inorganic poisons.

### Tests

If it is possible to obtain some of the powdered barbiturate, the melting point identifies the particular drug. Barbital melts between 187° and 190°. Phenobarbital melts between 173° and 177°. Up to the present time there are no chemical tests that will identify one barbiturate from another. In addition to obtaining the melting point of the crystals obtained by extraction or sublimation, there are a few simple tests that we use in the detection of barbiturates.

1. A water solution of the barbiturate will give with a few drops of Millon's reagent, a yellow-white gelatinous precipitate, which is soluble in excess of the reagent.

2. To a solution of the barbiturate in absolute alcohol add 0.2 c.c. of a 1 per cent absolute alcoholic cobaltous nitrate solution. Add to this 0.1 c.c. of a 1 per cent potassium hydroxide in absolute alcohol. A blue or violet color will appear. Some investigators use cobaltous acetate and 1 per cent barium hydroxide dissolved in absolute alcohol. The alcoholic cobaltous nitrate or acetate solutions must be kept in pyrex glass bottles, otherwise they decompose readily in the ordinary bottle. The tests should also be conducted in pyrex test tubes as the colors fade in the soft glass test tubes. The standards will keep for considerable length of time if made in pyrex glass.

3. Twenty to thirty milligrams of the barbiturate is dissolved in alcohol, to this add 1 c.c. of normal sodium nitrate solution and 1 c.c. of sulphuric acid. Cool, add 5 c.c. of 30 per cent sodium hydroxide. Shake, and you will obtain a yellow to orange-red color. Acidify with hydrochloric acid and extract with chloroform and you will obtain an orange to yellow color.

4. Ammonium phosphate precipitates out of an alkaline solution the free barbituric acid compound.

5. Thallium acetate precipitates out of an ammonium solution of the barbiturate a crystalline precipitate of needles.

### Summary

1. In barbituric acid and its numerous derivatives, we are dealing with a dangerous drug. This fact has been recently recognized by authorities enforcing the stipulations of the Food, Drug and Cosmetic Act, which necessitates the placing of the words "May be habit-forming" on all labels of preparations containing barbiturates.

2. The sale of barbiturates to the layman is regulated by twenty-seven states, and should be subjected to a rigid control in every state.

3. Barbiturates should be dispensed only upon the prescription of a physician and on the prescription "Non. rep." (non repetatur: do not repeat) should be written.

4. The promiscuous purchasing by the laity of this class of drugs must be stopped. A despondent or depressed person may obtain at present a sufficient quantity to cause death with suicidal intent. If a ruling is enacted prohibiting the sale of more than 10 grains within seven to ten days, the period of depression in many instances will have been dissipated by the end of this time and a useful person restored to his community.

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# Tumor of Adrenal Cortex in a Child of Fifteen Months*

By Rockwell M. Kempton, M.D.

and

Oliver W. Lohr, M.D.

Saginaw, Michigan

ROCKWELL M. KEMPTON, M.D.
*M.D., University of Michigan Medical School, 1918. Fellow, American Academy of Pediatrics. Certification, American Board of Pediatrics. Fellow, American College of Physicians. Attending Staff, Saginaw General, St. Mary's and St. Luke's Hospitals. Member, Michigan State Medical Society.*

OLIVER W. LOHR, M.D.
*M.D., Washington University School of Medicine, 1921. Member, American Society of Clinical Pathologists. Certified by the American Board of Pathology. Pathologist to Saginaw General, St. Mary's and St. Luke's Hospitals. Director of Central Laboratory. Member, Michigan State Medical Society.*

Fig. 1. Facial view showing masculinization—coarse features, hair on face, et cetera.

Fig. 2. Pubic region

■ IT is well understood that the endocrine system does not consist of glandular entities, but rather that there is a close inter-relationship, a complicated carry-over of one gland to another. It is not strange, therefore, that when a tumor invades one endocrine gland, it may set up disturbances in the internal secretions of certain other glands to which it may be allied.

In considering tumors of the adrenal, it must be remembered that this organ like the pancreas consists of two entirely different portions—the cortex, which is of a fatty nature, and the medulla which has to do with the sympathetic nervous system. It is therefore logical that a tumor involving either portion of the adrenal gland will produce its characteristic clinical picture.

There is a very close relationship between the adrenals and the sexual glands, and this relationship seems to be closer and more active in the female than in the male. Investigators have noted a definite enlargement of the ovaries of rabbits after double adrenalectomy, while removal of the adrenals in the male caused no changes in the testes. On the other hand, when the development of a tumor in the cortex brings about an excessive development of adrenal cortical tissue in the female the developing female organism is apparently subjected to an increased amount of testicular hormone and the female develops masculine secondary sex characteristics. In the male such a tumor would merely cause premature sexual development along normal male lines.

These embryonic tumors with endocrine changes usually show only relatively minor deviations from the normal, such as enlargement of the clitoris, early pubic hair, et cetera. This is due to the fact that the changes begin well toward the end of the embryonic life, when the structure of the sex organs is virtually completed.

Adrenal cortex tumors bring about striking changes of masculinization in both boys and girls. This calls the condition to the attention of the parents. In the female, enlargement of the clitoris is an almost constant finding. The organ becomes several times its normal size and may be two or three centimeters in length. Its diameter is increased, and its consistency firmer. The labia minora folding around the structure give it an appearance closely simulating a small penis. In some cases the clitoris hypertrophies to such an extent that encroachment on the external urethral meatus causes partial obstruction

*Presented at the 76th Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1941.

Fig. 3. Hypertrophied clitoris.

Fig. 4. Gross tumor cut in half.

to the flow of urine. With the enlargement of the clitoris, pubic hair appears in abundance. The hair is long, coarse and dense and is usually limited to the pubic area. Such changes may be seen at a very early age, one case cited was observed by a mother in the second week of life. Secondary sexual changes such as voice changes may be noted, and the skin may show acne. In the female the feminine contour is partially or completely lost and the little girl presents the picture of a powerfully built boy with coarse features. Bone age is advanced from one to four years, as seen in centers of ossification. Hypertension is sometimes found, but is not as constant a finding as in the medullary tumors.

## Case Report*

Saginaw General Hospital No. 46625.—J. L., female, aged fifteen months, entered the hospital for study because of enlarging abdomen and presence of large amount of pubic hair. The family history was negative. She had one sister, aged three years. Birth history was that of a normal spontaneous delivery, weight six pounds. Aside from frequent colds, child had been well, no contagious diseases. At the age of six months, the parents noted the enlarging abdomen and the appearance of pubic hair. With increasing age the abdomen continued to enlarge and the growth of hair became marked, not only about the vulva, but also on the side of the face, lateral aspects of the abdomen and across the back. The child grew rapidly, weighing twenty-four pounds at one year of age. She was able to sit and walk at the normal age. Dentition began rather early, and proceeded rapidly, more than the usual number of teeth being present at the age of one year.

On examination the child appeared much older than her years, had a rather heavy voice and the facies were coarse with an abundance of hair, which extended down the sides of her face like sideburns. The pubic hair was long, coarse and dense and limited to the pubic area. The labia were larger than normal and the clitoris was many times larger than normal. Aside from the above, physical examination was negative except for the greatly enlarged abdomen with a sense of fullness in the left upper abdomen which seemed to arise from the region of the left kidney.

The blood was normal save for a leukocytosis of 16,800, differential count showed 57 per cent polymorphonuclears. Urine was essentially negative, only a slight trace of albumin with four to six white blood cells per high power field in the sediment. Wassermann and Kahn tests on the blood were negative. No studies were made on hormonal excretion in the urine.

Intravenous pyelography was reported as showing evidence of dye in the right kidney but none was seen on the left. The left kidney was then investigated by means of retrograde pyelography which showed a very small kidney cavity grossly displaced toward the midline. It was reported as indicating the presence of a tumor in or about the left kidney. Chest films both antero-posterior and lateral were negative.

X-ray studies of the left forearm and leg showed ossification to be advanced at least a year or more above normal for the age. The carpus showed four centers of ossification at her age of fifteen months, while normally there are only three centers at three and one-half years. Likewise the elbow showed two centers of ossification while normally only one exists at two and one-half years.

On account of a respiratory infection with considerable fever, the child was allowed to go home for observation, to return later for surgery. On re-

*We are indebted to Dr. Dale E. Thomas for the use of this case.

turn, two weeks later, the child was operated by the transabdominal route. The large rounded tumor mass was identified as arising from the left adrenal markedly displacing the left kidney downward. Following operation the child showed a severe temperature reaction reading 109 degrees and died twelve hours later.

*Postmortem Examination:* The external examination revealed a well developed, well nourished baby girl, aged fifteen months and measuring thirty-two inches in length. The appearance was that of a child much older. The most important findings externally were definite development of hair on the sides of the face, slight thickening of the lips, coarse hair on the abdomen, extending well above the level of the umbilicus, and changes in the external genitalia. The pubis was covered with thick brown hair, and there was a coarse dense growth of hair on the labia, extending down to and over the anus. The clitoris was remarkably hypertrophied and had the appearance of a male penis. There was hypertrophy of the labia, majora and minora. The hair extended up from the genitalia in a radial direction toward the right and left sides of the abdomen.

Internal examination revealed nothing remarkable in the thorax. The abdomen revealed evidence of a previous operation. The left adrenal had been removed previously and sent to the laboratory for examination. This organ was a large mass measuring 13x10x7x6 cm. and weighing 610 grams. The tissue seemed to be fairly well encapsulated, was quite soft, and had almost a cystic feel. When cut across, it seemed to be solid and cut easily. It was yellowish-brown in color, and there was one fair-sized hemorrhagic area measuring about 2x1 cm. In some areas, on the cut surface, there were oval shaped masses measuring about 10 to 12 mm. in diameter. The tissue broke up very easily.

The right adrenal was present and measured 4x2x1 cm. The organ weighed 15 grams and showed nothing of importance.

The liver was moderately congested and measured 16x15x10 cms. and 5x2½ cms. thick. The organ weighed 520 grams.

The spleen measured 8x8x4½x2 cms. and weighed 80 grams.

The other abdominal organs showed nothing of importance.

The pelvic organs showed no gross abnormalities.

Microscopic examination revealed nothing of importance in the lungs, liver, spleen and kidney, with the exception of moderate congestion.

Sections of the adrenal tumor revealed a cortical carcinoma. There were rather large sheets of cells with many tumor giant cells, also alveolar arrangements and an occasional mitotic figure.

Sections of the right adrenal showed no important changes.

The uterus showed nothing of importance.

The ovaries: The cortex contained a large number of primordial follicles and an occasional large primary follicle. One of these primary follicles contained a fairly well developed ovulum, a fairly well developed membrana granuloa and a theca folliculi. There were scattered corpora fibrosa.

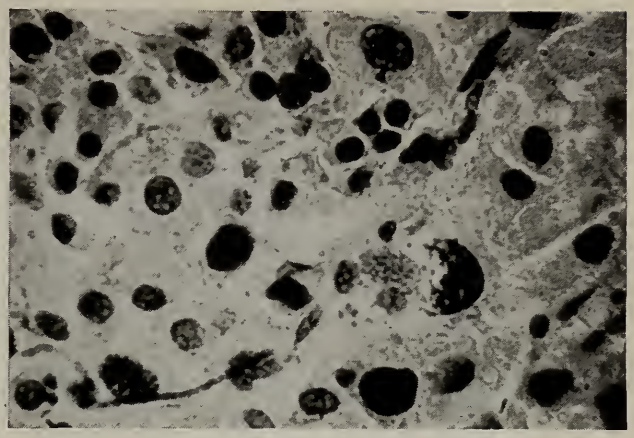

Fig. 5. Microscopic section of tumor.

The clitoris: There was marked hypertrophy. The cavernous spaces were large and well developed. There were many small blood vessels, many of them filled with blood. The squamous epithelium was thickened and there was a moderate degree of keratosis.

## Diagnosis

1. Postoperative shock following removal of carcinoma of adrenal cortex (left).
2. Infantile adrenogenitalism.
3. Hirsutism.
4. Hypertrophy of clitoris.

MSMS

### STRETCH YOUR RUBBER

Nine rules to observe in order to make your tires last longer:

1. Cut out high speeds. Tires last twice as long at 40 miles per hour as at 60 miles per hour.
2. Maintain proper air pressure. Never allow air pressure to fall more than 3 pounds below the minimum recommended by your service attendant.
3. Stop "jack-rabbit" starts and stops. These burn up rubber needlessly—mean shorter life for tires.
4. Change wheel positions every 5,000 miles. This equalizes wear—helps give longer use.
5. Avoid curbs, road holes, rocks, etc. Carelessness means broken casings, blow-outs, etc.
6. Check wheel alignment twice a year. Misalignment causes scuffing and uneven wear.
7. Repair all cuts, leaks, breaks, promptly. Delay may cause damage that can't be repaired. Breaks and cuts should be vulcanized whenever possible. Blowout patches should only be temporary.
8. Use tires that fit. Check to make sure what size tire is required.
9. Don't speed around curves. Fast turns burn rubber from tires.

(Be sure to list the serial numbers of your tires—a valuable aid in case of theft).—From the *Detroit Medical News,* February 2, 1942.

# The Code of Medical Ethics*

By Alphonse M. Schwitalla, S.J., Dean,
St. Louis University School of Medicine
St. Louis, Missouri

Alphonse Schwitalla, S.J.
*A.M., St. Louis University, 1908; Ph.D., Johns Hopkins University (Zoology), 1921; LL.D., Tulane University, New Orleans, 1938; Sc.D., Lawrence College, 1939. Dean, St. Louis University School of Medicine; Regent, St. Louis University School of Nursing and School of Dentistry; President, Catholic Hospital Association of U. S. and Canada; Professor of Biology and Director of the Department, St. Louis University; Past President, North Central Association of Colleges and Secondary Schools; Editor of HOSPITAL PROGRESS; Associate Fellow, American Medical Association.*

## Ethics

It takes more "nerve" than is apparent at first sight to choose as a topic for discussion the one which I have chosen for an audience such as this. If we were looking for a recreational evening, we might well hold a debate rather than to listen to a dogmatic discussion on the question of ethics and medical ethics and the code of medical ethics. For we all have our own views on the meaning of ethics just as we have on the meaning of religion and of character and of honesty and of the thousands of other intangible realities of life which are susceptible of as many definitions as there are minds which attempt to define them.

When I asked my colored janitor what character is, the answer which he gave was probably as valuable to him as any that I would give might be valuable to me, "If you got it, nobody cares whether you got it or ain't got it, but if you ain't got it, everybody knows you a'n't got it." When I asked him similarly what religion is, his answer was "I go to any church where I find the word of God. I ain't none of those denominator fighters." I never tried to get from him a definition of ethics but I can well fancy that he might give the same answer which another gave when asked about his conduct, "I don't know whether I done right or wrong, but I done it."

Those of us who have watched the trend of philosophical thought, especially among scientists, over a period of decades, will have little if any difficulty in tracing the changing fashions with reference to ethics. The first decade of the present century marked the ascendency of Jacques Loeb, the physiologist, for whom physiology and ethics were synonymous and who had no hesitation in assuring his students that the problem of propagation of the nerve impulse or the fatigue curve of the gastrocnemius is exactly the same as the problem of a mother's love for her child or the stealthy plunge of the assassin's dagger into the fourth intercostal space of his victim. This period of physiological determinism was followed by the period of genetic determinism when Popenoe could assure us that what you do today was determined at the first moment of your existence as a fertilized egg and that you can no more not do what you are doing, than you can do right now what you have determined not to do right now simply because everyone of your actions conforms to your action pattern and your action pattern is determined by your chromosomal map.

And then in another period, we fell under the influence of the natural historians when Alexander Tille, basing his thinking upon the older writers of the Darwinian half century, assured us with pontifical infallibility that "ethics is applied natural history." And when the pre-World War philosophers adopted the modern version of the Darwinian teaching of the survival of the fittest in man's implacable struggle for existence to inaugurate the most ruthless programs of bestial warfare. But the reaction to this had to come and in the post-war period, the ascendency of Watsonianism popularized the modifiability of man's conduct, he called out, "Give me the baby and I will make it climb and use its hands; I will make it a thief, a gunman or a dope fiend. Men are built, not born." Just why Watson chose such strange ambitions for the baby which he pleads we should give him, has never been explained. We might have been interested if he had said, "Give me the baby and I will make him a doctor, or a dentist, or a brain truster." We might have been more inclined to give him what he called for.

And today, in this post-Watsonian period, we have the emphas's upon ethics as the expression of the total personality. From Kretschmer to our American integralists, the emphasis is upon the whole man who expressed himself in every one of his actions.

**The change of fashion in ethics concerning individual conduct has been paralleled by change of fashion in the interpretation of**

*Andrew P. Biddle Oration delivered at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 17, 1941.

**group action. In a very few decades, the pendulum has swung from state domination to national self-determination and back again to totalitarianism in a modified and highly differentiated form, disguised but still determination and coercion by imposition and not by individual choice.**

We are harking back to the old idea of tribal society which to William Thomas' thinking a few decades ago is simply delayed civilization and savagery is nothing else than contemporaneous ancestry.

Yet through all of this thinking in all its multiform extremes, some few basic thoughts seem to persist. Somehow, there have been still kept a few remnants of conviction that I "should" do this and "should" not do that. There even persists the hope that I might do better tomorrow than I did today, whatever we mean by "might" and "better." And still more strange, we still recognize the validity of the word "must" both with reference to ourselves as well as with reference to our children and our subordinates. The imperative "shall" and "shall not" still has a measure of validity in our lives. Strange to say, we still attach praise and blame to people's conduct; we still have jails and give hero medals; we make civic awards and we write editorials against public dishonesty; and strangest of all, we still preach the doctrine that man is captain of his own soul, that he is master of his own heart. We still talk about tolerance and sympathy and broad-mindedness with reference to others and we accept such ideas as those implied in the words goodness and charity and justice and honesty and uprightness. Our philosophizing has less common sense about it than our conduct. It reminds one of Bishop Berkley with his skepticism. In his books, he doubted whether there could be such a thing as an umbrella or rain because as an idealistic skeptic, he was forced to doubt their reality; *but when he went out into the rain, he took his umbrella.*

In the laboratory or the library or our study room, we might raise a thousand problems about the nature of ethics but in daily life, we know that right and wrong are still valid concepts and the still voice of my practical judgment about my own conduct which goes by the old-fashioned name of conscience, would still approve the good deed and disapprove the bad deed, no matter how much I argue about what is meant by "good" or "bad." I might even stifle that internal critic and flatter myself that I have killed him off and yet, he has a way of simulating death which convinces me that he cannot die as long as I live no matter how hoary or decrepit may become the years through which I endure.

**And it is all this upon which our civilization is ultimately based. The keenest of thinkers have pointed out to us that knowledge is necessary for the growth of civilization but civilization does not grow with knowledge, it grows with responsibility. The higher the sense of responsibility, the more extended and intensified, the higher the civilization of individual and nation alike; the more restricted, the more lax and lenient the sense of responsibility, the lower the civilization of individual and nation alike.**

### Medical Ethics

If ethics depends on the individual's responsibility, we cannot but recognize that there must be degrees in ethics since there are degrees in responsibility; degrees which depend upon the knowledge of the individual, the subject matter affected by his conduct, the general cultural levels of his life, the amplitude of the consequences that may follow from his conduct. And so, we must recognize also the validity of the concept of professional ethics. For, Mr. Arnold to the contrary notwithstanding, there is still a distinction in civilized society between a trade and a profession, between the individual's responsibility for himself alone and his responsibility for other human beings. Mr. Arnold to the contrary notwithstanding, the source of responsibility of the individual is not all governmental regulation. It is not only in the laboratory or in the philosopher's study that the concept of ethics has been questioned. Even the bench of an appellate court has taken upon itself to question whether there is such a thing as professional ethics. Even if the court attempted to deny that the difference between a trade and a profession lies in the degree and extent of responsibility for conduct that affects the life of others, our good common sense will still point out to me that there is a difference between the responsibility of a plumber, who repairs the kitchen sink, and the responsibility of a physician, who removes a diseased kidney; a dif-

ference between the responsibility of the electrician, who repairs the switch to control the lighting of the house, and of the neurosurgeon, who performs a sympathectomy; a difference in the responsibility of the cook, who prepares the food, and of the physician, who changes the chemical reactions of the intestinal tract by appropriate medication.

**We may legalize the philosophy of a falsely conceived democracy which has a tendency to reduce everything to a common level by insisting that all forms of work no matter what they be have the same social significance but our own common sense will still tell us that when I place my life in the hands of a physician, I am doing something quite different than when I sign my name to a deed for a piece of property or when I buy the gasoline for my Sunday's outing. Of course, all forms of work are honorable, all forms of work have a social value, all forms of work can make or mar human happiness, but the physician, despite any court decision to the contrary, undertakes a responsibility for me which is an individual responsibility and which is more akin to the responsibility of a mother's love for her child than it is to the attraction of a magnet to a piece of steel; more akin to the communication of knowledge by the teacher to her pupils than it is to the typesetting of the linotyper; more akin to the creative work of a Michelangelo, a Shakespeare or a Beethoven than it is to the advertising of a soft drink. Democracy in its highest concepts does not mean a levelling in knowledge or responsibility or in social function but it means the dedication of the individual's highest capacity to the common good and that dedication is a responsibility which implies self-forgetfulness, absorption in the highest purposes of living, a vision of the implications and consequences of the modification of a human life.**

Of course, Mr. Arnold is not alone in his thinking. There are enough other schools of thought that have taken it upon themselves to tell the physician that he is little more than a technician who by mere accident deals with protoplasm in place of putty, with nerves in place of wires, and with eyes and ears in place of photographic plates and sound amplifiers. Medical ethics in a certain very popular school of thought headed by those whose names we need not mention, has been identified with medical economics. The criterion of judgment of the doctor as a professional man is no longer his internal satisfaction that he derives from the saving of human lives, it is the satisfaction which he derives from his bank book; no longer the gratification that he has snatched the cold hand of death from the throat of a hemorrhaging mother whose children clamor for her affection, but rather the fact that he has placed the hand of a possessor upon new acreage in which he is to gratify his sense of domination. If medicine were to follow such dictates, the poor might starve and the sick might die with little more social effect than might ensue from the running down of a boiler by reason of the lack of fuel or the cessation of the brine pump in a refrigerator. Such a philosophy tears down the dignity of a human being, equalizes the sacred service of dedication to humanity and the prosecution of financial gain and throws into the same average, the intangibles of dedication to a cause with the expenditure of so many foot-pounds of energy derived from the burning of a gallon of gasoline.

Our minds rebel against such thinking and no matter what the legal sophistries might be upon which such figmental structures are built, the facts still remain that the human being knows that he is exposed to dangers of life and limb, to dangers to his mental sanity and his physical well being and that there is one and only one, his physician, who in the whole range of human employment and occupation can serve him in the preservation of life and life's health. Of course, if we regard the individual merely as a creature of the state and as a slave of the state, then we can attach a monetary value to the functions of the slave, but if we regard the state as the servant of man, then the value of the human life and human well being must increase in proportion to the value which we set upon man, for whom government is the expression of man's own value of the environment within which he seeks to achieve the realization of his legitimate hopes and ambitions.

And therein lies the importance of professional ethics. It is scarcely ten years ago that the writer of the Majority Report of the Committee on the Costs of Medical Care insisted that the responsibility of the physician for his patient is nothing more than the responsibility of one human being

towards another in any one of the millions of possible human inter-relationships; that there is no difference between the medical service of the physician involving as it does at times, all phases of personal and family life, inclusive of economic, financial, social, psychological and religious conditions, together with the products of character and personality and the service which is rendered to the human being through the agency of commerce and industry. How strange those words sound to us after the lapse of even so short a period as one decade, when one contemplates the change in attitude that has been literally forced upon us by the growing emphasis of medicine upon the physical aspects of the individuality of the patient. Surely, scarcely a day passes on which we are not made aware, if we read and listen even ever so casually, of the implications of individuality. Therein lies the basis, the foundation of medical ethics; the central thought of the physician's responsibility for the patient; therein lies that sublimity of medical practice that all the range of modern progressive scientific discoveries must converge upon the human being and the physician, who conscientiously and competently practices his profession, must place at the disposal of the patient, who trusts in himself, the combined experience of the entire profession, of its research workers and its teachers and its practitioners and its administrators, in the safeguarding of human life. No other of the natural professions can place as much emphasis as medicine can upon the dignity and the majesty of man. From that attitude of medicine must flow all positive prescriptions for the proper conduct of the physician, that principle must be the sole criterion of dignified and decent medical practice as contrasted with charlatanism and quackery. Let the physician forget what he owes to the individual man and the dignity of man will be dragged through the dregs of the remnants of human culture and refinement. Let medicine relinquish its responsibility for upholding even in a skeptical society, the dignity of man, and no degree of economics, no matter how strongly supported it be by wealth and affluence, can serve as the saviour of man in his degradation.

### The Code of Medical Ethics

The founder of one of the great religious orders of the Catholic Church when confronted with the necessity of writing constitutions for his Order, expressed the hope that those constitutions may be nothing more than the external formulation of "the interior law of charity and love" which each member of his Order must have towards other members in the pursuit of a common purpose. Formulations are, after all, but clumsy and inadequate things which say sometimes what may not be intended and which must leave unsaid what sometimes it is quite impossible to say. And yet, we human beings cannot understand each other merely by intuition and by psychological penetration into each other's minds; we must formulate our thoughts. And so we have laws and charters and enactments and statutes and canons and rules and ordinances and decrees and codes, all necessary and useful in the complicated work of enlisting human coöperation in our human functioning.

At the Biochemical Symposium on Nutrition at the University of Wisconsin only last Friday, one of the speakers discussed the function of the co-enzymes and a wag asked the question, "What is the difference between a co-enzyme, a coördinator and the co-ed?" And the answer was promptly given that the co-enzyme enables the co-ed to coördinate. Our codes and statutes and ordinances serve as enzymes for securing human coöperation in human problems.

And so, too, the code of medical ethics can be misunderstood only by him who wishes to misunderstand it. It is not a formulation of positive prescriptions which are devoid of purpose and principle; it is not a formulation of positive law meager in ideas or ideals. As a code, it cannot be understood without a deep appreciation of basic principles, of background and of reverence. Those who see in it, as so many profess to see, a collection of platitudes, simply reveal their inability to appreciate unselfish idealism; those who see in it the unrealized ambitions of a self-sacrificing profession, simply betray their lack of appreciation of human trust and the power of human dedication.

We cannot, to be sure, on this occasion, trace the development of this magnificent document through the vicissitudes of social change, but if those who are constantly harping on the necessity of adaptation of medicine to social change were to trace with scholarly insight the modifications of the Code between 1847 and 1940, they would cease to clamor for the adaptation of medicine to social change and, in all justice, they would be

forced to reveal their admiration of a conservative profession which has yet kept its progressiveness while clinging to the essentials in human conduct. During one hundred years almost, the Code has lived unscathed but not unchanged except in its fundamentals, through the stormy period that culminated in the catastrophies of the Civil War. It lived through the period of reconstruction, through the period of industrial revolution, through the stresses of the World War, through the depression and through our present anxieties, but through all of these social changes, the Code has maintained its dignity, its idealism and its effectiveness.

Today, we begin with emphasis upon the physician's responsibility, the prime object of which is service to humanity and not financial gain; in that older day, we began with the dignity of the physician and the sublimity and the greatness of his mission and the consequent necessity of uniting in his deportment "tenderness with firmness and condescension with authority, so as to inspire the minds of their patients with gratitude, respect and confidence." If today we are emphasizing among the physician's duties first "the patient's delicacy and secrecy," those same characteristics with special emphasis upon secrecy and the extent of its implication, were found in the days of 1847. If today we insist that the physician "must give timely notice of dangerous manifestations of the disease to the friends of the patient," we express the same thought, though with a somewhat different motivation, in an earlier day when we said "a physician should not be forward to make gloomy prognostications because they savor of empiricism . . . for the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit he may smooth the bed of death, revive expiring life and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned in their last moments."

Today, we emphasize the patient's free choice of his physician and the physician's obligation not to abandon or neglect a patient; in 1847, frequent visits to the sick are counseled, "but unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician and render him liable to be suspected of interested motives." If today we insist upon upholding the honor of the profession by the physician's conduct as a gentleman, the corresponding paragraph in 1847 reads: the physician "should avoid all contumelious and sarcastic remarks relative to the medical faculty as a body, and while, by unweary diligence he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have by their labors brought it to the elevated position in which he finds it."

To this today, the statement about the physician's deportment is as applicable as it was to that older day, "there is no profession from the members of which greater purity of character, and a higher standard of moral excellence are required than the medical . . . because no scientific attainments can compensate for want of correct moral principles."

**Those who have criticized the present demands of the Code forbidding advertising and those also, especially those outside of the profession who have so repeatedly insisted that medicine needs more interpretation, would be surprised to find the following paragraph in the Code of 1847. "It is derogatory to the dignity of the profession to resort to public advertisements or private cards or hand bills inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis or promising radical cures; or to publish cases and operations in public prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skills and success or to perform any other similar acts. These are the ordinary practices of empirics and are highly reprehensible in a regular physician."**

Again, our present day attitude towards the protection of particular remedies by patent and the owning of these patents by physicians dates back a full century. We read "Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum whether it be the composition or exclusive property of himself or of others. For if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and, if mystery alone can give it value and importance, such craft implies either dis-

graceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines or in any way to promote the use of them."

In that older day, intra-professional courtesies were discharged with the same delicacy, generosity and conscientiousness as are customary today among physicians. If the regulation is more full of human courtesy and affection than our brief statement upon this point in the Code of 1940, nevertheless, the underlying thought and principle are still the same. To quote from the Code of 1847 "a physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child or anyone who, by the ties of consanguinity is rendered peculiarly dear to him, tend to obscure his judgment and produce timidity and irresolution in his practice. Under such circumstances medical men are peculiarly dependent upon each other and kind offices and professional aid should always be cheerfully and gratuitously afforded."

The profound consideration of the patient and the delicate consideration of physician for physician which is so obvious and characteristic of the medical profession in the Code of Ethics of today with reference to consultations, has a century of sound, gentlemanly and competent practice behind it and there is not a phase of today's Code which is not foreshadowed sometimes in exactly the same words in the Code of 1847. If there is any difference, it is in the constant insistence that consultations are professional secrets and must be kept, therefore, either verbally or in writing "under seal."

**Again, in the exaggerations of our attitudes towards democratic practice, there are many who resent the restrictions imposed by the laws of most of our states with reference to the physician's education. In season and out of season, we hear criticisms of the accepted list of schools of medicine. The public has not as yet learned generally to understand the reasons for school approval. Harking back to 1847, we find even in that early day of many medical schools that a "regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession." It touches us with peculiar force to read in the same paragraph "No one can be considered as regular practitioner or a fit associate in consultations whose practice is placed on an exclusive dogma, to the rejection of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry."**

Again, our medical societies have been subjected to public criticism even in some cases by the courts, for insisting upon the regulation that a physician should not prescribe for a patient while the latter is under the care of another member of the profession. The statement of our present Code of Ethics on this point is pithy and pointed. We find it more diffuse in the Code of 1847 but still the same principle is insisted upon "a physician ought not to take charge of or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness except in cases of sudden emergency . . . under such circumstances no unjust and illiberal insinuations should be thrown out in relation to the practice previously pursued which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill." The Code of Ethics of 1940 contains formulations pertaining to proper conduct in emergency cases in instances when several physicians are summoned, in instances when a physician must treat the patient of a colleague and in case a patient is to be relinquished to another physician. All of these elements of the Code are to be found more extensively and perhaps delicately worded in the Code of 1847 but the spirit and sometimes even the letter of the formulation of today again date back in all these various respects to the Code of 1847. It will touch many a physician with peculiar force to read "A wealthy physician should not give advice gratis to the affluent; because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support

when fees are dispensed with which might justly be claimed."

Those, both among the profession and the laity, who seem to think that the extension of the physician's service to areas of public interest is an invention of our own day as well as those who are clamoring for a still greater interest on the part of the profession in public questions of the day, will find little evidence to support their strictures in the Code of 1847. Physicians are urged to lend their services in the protection of the public at coroners' inquests, in courts of justice, in criminal courts, in meeting the needs of poverty, in the performance of medical services incident to the military requirements of the times, in presenting certificates of health to insurance companies and in the thousand and one contingencies of civil life. The physician is urged to familiarize himself with medical jurisprudence in these various respects. Health qualifications for occupations are mentioned as if it were taken for granted that the physician is to consider such matters as part of his daily interests. It is insisted upon that when such services are rendered to institutions endowed by the public or by rich individuals or if they are rendered to societies for mutual benefit or insurance agencies, proper fees should be charged. But the Code of 1847 goes on to say "to individuals in indigent circumstances such professional services should always be cheerfully and freely accorded."

In the Code of 1847, there is one omission which is striking and it represents perhaps the most radical difference between the Code of 1940 and the first official version. There is no section dealing with contract practice nor one dealing with commissions nor one dealing with direct profit to lay groups. These sections of the present Code were formulated in direct response to the ascendancy of economics in public life. In that older day, there was no danger of confusing economics with ethics. Public health, as far as the Code of Ethics is concerned, is not an invention of the twentieth century. In the Code of 1847, not otherwise than in the Code of 1940, it is said "As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community." Physicians are urged to act as counselors on all matters of community medical policy, of public hygiene and of legal medicine. They are urged to act as consultants for the dietaries of hospitals, asylums, schools, prisons, and similar institutions. They are urged to offer their advice with reference to drainage and ventilation, with reference to the prevention of epidemics and of contagious disease; and the paragraph in question closes with the stirring prescription "and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering even at the jeopardy of their own lives."

Lastly, the Code of 1847 contains eloquent formulations with reference to pharmacies and pharmacology, "It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injuries to health and even destruction of life caused by the use of quack medicine, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretentions of artful empirics and imposters." Physicians are urged to use their influence with schools of pharmacy and with the apothecaries to discourage quack or secret medicines and to persuade these institutions against engaging in the manufacture or sale of all questionable products.

## Conclusion

In concluding this review, one cannot but be impressed by the highmindedness, unselfishness, the liberality and the emphasis upon competence which has persisted throughout the changes in the wording of the Code from the days of 1847 to 1940. In that century, governments rose and fell, changes in human society, indescribably complex, have taken place throughout the world. The pendulum has swung from centralized authority to democracy and back again to totalitarianism and yet, for medicine, the patient, the human being, was always the focal point of his interest; the physical, the mental, the moral betterment of mankind was the only consideration upon which the physician was thought of as basing his professional conduct. *No other profession could accept the challenge to show a more effective preservation of idealism and of unselfish service.* The physician's personal interest, the interest of his profession, his personal gain, the progress of his science and art, all these are to be subordinated to the only consideration which medicine deemed worthy of its high responsibilities. The procedures by which men of other call-

ings increased their status in social life, might be legitimate enough for them but they could not be considered legitimate for the physician. The ambitions which for men of other callings were considered laudable, could not be regarded as praiseworthy for the physician unless they were achieved through his service to human beings.

Is all this something of which medicine may be proud? Public misunderstandings may crowd in upon the profession; misguided students of the sciences and arts of life may consider themselves competent to pass judgment upon medicine, the heralds of revolt may crowd in upon the votaries of Æsculapius, the crusaders for new worlds may clamor for a new medicine but medicine itself in the humble habiliments of the servant of the noblest of God's creatures, man himself, will pass on and up through clamors and struggles because of the nobility and the majesty of the service which it renders and which it alone can render. The very persons who shout loudest for the new order in medicine are the ones who yearn for the benefits of the old order when their moment of need has arrived. Medicine knows through its centuries of accumulated wisdom that its progress lies not in the vacillating and veering policies of politics, in rebellions and revolts but only in the persistent devotion to scientific truth, moral uprightness and in the self-dedication of the individual physician's service to the noble purposes that are achieved through truth and moral goodness.

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**SOURCES OF INFECTION IN TUBERCULOSIS**

The prevalence of tuberculosis in any community is determined by the general standard of living and by the number of open carriers. In particular occupations the factors of selective employment and unfavorable environment modify the picture.

The source of the great bulk of infections is a human carrier with a pulmonary cavity. While the home is probably the place of most childhood and some adult contacts, many primary infections and more reinfections must occur in the place of work. Nurses, physicians and attendants on the sick encounter a real occupational hazard from infection itself and this hazard should be accepted as incidental to the professional life while hospital management should assume the obligation of minimizing opportunities for mass infection.

Fumes and gases are inhalable and many of them are sufficiently irritating to provoke severe inflammatory reaction. Mature judgment on the effects of gas used by the armies during the last war reversed the early opinion that this agent was responsible for the excess of tuberculosis that developed. Routine annual examination of a large group of employees engaged in the manufacture of chlorine, phosgene, hydrofluoric acid and other irritating gases, supports the view that exposure to irritant gases is not responsible for excess tuberculosis.

# Boric-Butyn-Petrolatum Gauze Treatment of Burns

By G. Kenneth Hughes, M.D.
Columbus, Ohio

G. Kenneth Hughes, M.D.
*B.A., Ohio State University, 1934. M.D., Ohio State University, College of Medicine, 1938. Instructor in Research Surgery, Ohio State University College of Medicine. Member of Junior Surgical Staff, White Cross Hospital, Columbus, Ohio.*

- The treatment of burns, both mild and severe, resolves itself into

1. General Treatment
   (a) Combating of shock
   (b) Relief of pain
   (c) Alleviation of fluid and plasma deprivation
   (d) Sulfonamide medication per orum—an optional measure

2. Local Treatment
   (a) Débridement and thorough cleansing
   (b) Protection of the denuded area
   (c) Application of antiseptics
   (d) Application of local anesthetic

All authorities seem to agree upon the general principles but do not all agree as to the methods, especially with respect to the local treatment.

### Consideration of the "Burn Toxin"

Articles and discussions have been presented, during the past several years, on the subject of a "burn toxin" and its relation to the treatment of burns.

Davidson[5] (1925) instituted the tannic acid coagulation and eschar formation, a method based on the principle of precipitating proteins and preventing toxemia.

Underhill[19] (1930) maintained that blood concentration is the cause of most of the toxic symptoms of burns. Harkins[9] (1935) presented the view that there exists a fluid imbalance caused by a shift of protein and fluid in the tissues, resulting in hemoconcentration.

Rosenthal[15] (1937) postulated an histaminoid

While Resident Surgeon at Hurley Hospital, Flint, Michigan, Dr. Hughes applied the term "petrone" gauze, not indicating a proprietary preparation, but for convenience in description and to individualize the method.

substance in burned tissue that elicits the toxic symptoms. Wilson[20] (1937) has demonstrated the presence of a toxin which he believes is formed gradually by the autolysis of burned tissue.

McClure[11] (1939) discussed the various theories of death in severe burns, among which are hepatic insufficiency, infection toxemias, adrenal insufficiency, and, finally, the theory that there is an extensive loss of proteins which explains most of the general manifestations of severe burns. Trusler[18] (1939) suggests that the symptoms of emesis, hyperpyrexia, pulmonary edema, anasarca, convulsions, coma, and collapse which occur after a severe burn, have been falsely ascribed to toxemia; and are more probably due to water imbalance, tissues becoming waterlogged by fluid loss through injured capillaries. Blood and plasma transfusions prove more efficacious than non-protein fluids.

Elkington[6] (1940) stated the fluid imbalance is primarily due to capillary permeability, and that hemoconcentration is best controlled by frequent plasma transfusions during the first forty hours. Elman[7] and Tenery[16] both believe that plasma is the ideal parenteral fluid to combat toxemia and shock but that some toxic symptoms continue to persist.

Statistics indicate that regardless of the local treatment, coagulation or otherwise, the mortality rate is uniform, and that generally the lowered mortality rate is the result of the general treatment, primarily plasma and whole blood transfusions. There is no evidence that the coagulation treatment fixes a toxin and prevents its absorption. The eschar formation treatment can then be judged on its merit as a local treatment only. The advantage of being easily applied and requiring little or no attention for ten days to two weeks can be weighed against its disadvantages of rather frequent septic complication, occasional difficulty in removal, and destruction of epithelium. The writer is of the opinion that tannic acid and silver nitrate eschar treatment, occasionally converts an otherwise second degree burn into a third degree burn.

### Résumé of Modern Local Treatment

A number of new local treatments have appeared in the journals lately, all claiming advantages over the other.

There have been a number of modifications of the original Davidson method. Aldrich (1933) instituted the triple dye method (gentian violet, brilliant green, and neutral acriflaven).

Bettman[1] (1937) advocated silver nitrate following an initial application of tannic acid (5 per cent). Branch[2] (1937) advocated the silver nitrate-gentian violet (methyl rosaniline) treatment.

Cohen[4] suggests chemo-therapy by mouth (to obviate infection) with the silver nitrate-tannic acid method and also a diet high in proteins and vitamins. Glover[8] reported on the efficacy of the tannic acid treatment in a large number of cases, over a fifteen-year period.

Bruce,[3] in war burns, used (a) irrigation envelope, (5 per cent electrolytic hypochlorite solution), (b) sulfanilamide and tulle gras, (c) tannic acid-triple dye. Each treatment had its advantages in certain cases.

Pichrell[15] demonstrated excellent results with sulfadiazine treatment locally. Pierce [14] reported some good results with hydrosulphorite and believes it superior to other treatment, in use. Terrell[17] claims that experimental burns in dogs are more successfully treated with foille than with tannic acid.

Penberthy[12] says that the choice of local treatment depends on the location of the burns and the time that has elapsed before therapy is instituted. It is interesting to note that in burns of the face and hands he prefers a non-adherent type of dressing such as petrolatum gauze. He has published results of a large series of cases demonstrating a various number of treatments.

Each method has its advantages and each method of treatment may appear more efficacious than the other because it may be that it is more effectively administered by its respective advocates.

### Preparation of Boric-Butyn-Petrolatum Gauze

40 strips of gauze mesh, 3″ x 15″
2 oz. boric acid
1 oz. butyn (2 per cent)
Sufficient petrolatum to impregnate the gauze
Autoclave

The boric acid and butyn may be added to melted petrolatum before pouring onto the gauze strips.

We are not attempting to discredit any other form of treatment but we do wish to indicate a simple, easily available preparation that has

proved successful during its brief trial. In view of the foregoing principles, it occurred to the writer that a simple method may be resorted to that would meet all the requirements and yet eliminate some of the disadvantages associated with the tanning method.

General anti-shock measures and narcotics are given. Then, under general anesthesia, a débridement and cleansing is performed on the burned area, with soap and water, alcohol and boric acid. Boric-butyn-petrolatum gauze is next applied in strips of one layer thickness. A sterile dressing is superimposed. Intravenous fluids of a non-protein nature, and plasma or blood are administered, and, if necessary, other general measures advocated for burned patients. A redressing is done every two to three days, sponging the burned area with saturated boric acid and then applying medicated petrolatum gauze in one layer thickness, followed by sterile bandages.

## Case Histories

*Case 1.*—F. C., white boy, aged eight, was admitted to the hospital October 5, 1941, with second and third degree burns over back, neck and shoulders. Codeine, gr. ¼, was administered. Under general anesthesia, a débridement of loose skin and cleansing of the burned area was done with alcohol and boric acid solution. A topical application of 2 per cent butyn was applied, followed by petrolatum gauze and a sterile dressing superimposed. The dressing was changed every two to three days, applying medicated gauze. General measures of n. saline and blood plasma were given. The temperature rose to 101° on the second and third days and gradually subsided to normal by the sixth day. The pulse varied from 80 to 90. Patient was ambulatory on the sixth day. On the fourteenth day, a dry dressing was applied and a regime of a brine bath was instituted. The dressing was completely removed on the 18th day with recovery and healing and the patient was discharged on the 19th day with no scarring. No grafting was necessary.

*Case 2.*—W. P., white adult male, was admitted November 9, 1941, with second degree burns of hands and face, and third degree burn to left ear. M.S., gr. ¼, under pentothal sodium intravenous anesthesia, a débridement and cleansing was done with ether, alcohol, and boric acid, respectively. Boric-butyn-petrolatum gauze was applied and a sterile dry dressing was superimposed. The dressing was changed every two days, applying this gauze. Intravenous fluids were given on the first day. The patient was ambulatory on the fourth day. Temperature 100°, and pulse 100, subsided to normal on the third day. The patient was discharged on the sixth day with complete healing and recovery, except for the area of third degree burn, which required dressing for an additional two weeks.

*Case 3.*—J. C., white boy, was admitted to the hospital, January 13, 1942, with second degree burns on both buttocks and posterior aspect of thighs. Under general anesthesia a débridement and cleansing was performed with soap and water. To make a comparison, medicated petrolatum gauze was applied to the left thigh and a tannic acid (5 per cent), silver nitrate (10 per cent), tanning was applied to the right thigh. The gauze dressing was changed every two days. On the ninth hospital day the left leg, medicated petrolatum gauze treated, was clean and dry with complete healing. The intern removed the eschar (tannic acid-silver nitrate) from the right thigh, resulting in partial denudation, and appearance of several areas of bleeding. The healing time for the right thigh was prolonged several days.

*Case 4.*—A. P., white infant, aged fifteen weeks, was scalded over face, shoulders, and back, January 30, 1942. Cleansed with soap and water, and the prepared gauze applied, under general anesthesia. General treatment consisted of sulfathiazole, gr. ii, q. 4 h. for three days and sulfadiazine, gr. iii, q. 4 h. for three additional days. Continuous subcutaneous drip of lactate—Ringers solution. The clinical course was characterized by a rectal temperature that rose to 104° on the fourth day and gradually subsided to normal on the tenth day. The infant was being treated for an upper respiratory infection, before admission. An x-ray of the chest on the fourth day was negative. Blood counts: February 2, 1942, white blood cells 15,700, 66 per cent polymorphonuclears, 30 per cent lymphocytes, and 4 per cent monocytes. February 5—w.b.c., 12,800, 70 per cent polymorphonuclears, 22 per cent lymphocytes, 8 per cent monocytes. A boric-butyn-petrolatum gauze redressing was applied every two days. Patient was discharged on February 9 (eleventh day) in a recovered condition. The face was completely healed, but the back required some additional dressings at home.

*Case 5.*—J. E., aged nine months, was admitted with second and third degree burns over left lower extremity, extending from the toes to above the knee. Codeine, gr. ⅛, given. A débridement was performed with boric acid solution followed by the application of medicated petrolatum gauze and a sterile dressing. Medication included sulfadiazine, per orum, and iron and ammonium citrate. Clinical course was characterized by an elevation of temperature to 101° rectal on first day, and a gradual diminution to normal by the fourth day. A redressing of this gauze was done every three days. At the end of two weeks the legs and foot were dry and healed, an area of third degree burn about the ankle was unhealed and required some additional dressings.

## Comments

Several patients with burns of various degrees of severity have been treated by this method. Very gratifying results have been obtained in

every case. The disadvantages that have been manifest are: (1) difficulty in bandaging large areas, and (2) the necessity of redressing every two to three days. The advantages are: (1) a simple, easily available preparation, (2) a clean wound, always under observation, (3) comfortable patient, and (4) non-adherent dressing.

We wish to comment on the fact that in Case 3, a comparison was made between silver nitrate-tannic acid and the boric-butyn-petrolatum gauze method. The side treated with this latter gauze was healed by the ninth day; whereas, the side having the eschar was not healed and several additional days were required. No infection was apparent in any of the cases. There is no evidence of destruction of viable epithelium.

We do not imply that this method is superior to others, but that it has given very satisfying results, and merits further trial and investigation.

### Summary

1. The basic principles on the treatment of burns are outlined.

2. A brief review of the literature is given on the "burn toxin," demonstrating the value of plasma and electrolytic balance in combating the toxic manifestations. Though some evidence exists that toxin does actually develop in burned tissues, it has never been isolated. The mortality rate remains uniform regardless of the local treatment.

3. A résumé of the more recent methods in the local treatment of burns is given.

4. The boric-butyn-petrolatum gauze treatment is outlined.

5. Five cases are described in which this gauze method was outlined.

6. No extensive conclusions are intended. This medicated petrolatum gauze shows definite promise of being an efficient preparation and merits further investigation and a subsequent report.

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# Child Health in the National Defense Program*

By Borden S. Veeder, M.D.
Saint Louis, Missouri

BORDEN S. VEEDER, M.D.
*M.D., University of Pennsylvania, 1907, Professor of Clinical Pediatrics, Washington University, School of Medicine, since 1917, Member of American Pediatric Society, American Academy of Pediatrics and other medical organizations. President of American Board of Pediatrics. Editor, Journal of Pediatrics. Member II, III IV White House Conferences on Child Health and Welfare.*

▪ THE development of child health activities has had a close relationship to questions of national welfare and defense. While unthinkingly we are apt to look upon them as something based entirely upon humanitarian motives, the truth is quite otherwise. That the security and welfare of a nation is quite dependent upon the physical, emotional, and moral status of its youth is again being demonstrated, and it is for this reason that child health is intimately a part of a national defense program. A fact upon which we will agree is that the health of our youth is chiefly dependent upon what has taken place previously in the individual's life during the period of childhood. It follows, therefore, that

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child health is not part of an emergency program for the nation as a whole, but rather the emergency drives home the value and importance of the peacetime program as it has been developing in the United States in the last two decades, and what is called for is the extension and intensification of our present child health program. Child health is not a thing that can be obtained by temporary emergency developments, or the immediate expenditure of vast sums of defense money, as from its very nature it entails long time continuing supervision during the developmental years of childhood.

### Modern Child Health

As a physician speaking to physicians I wish to emphasize that we must enlarge our concepts of what we call "child health." It is not simply a matter of physical excellence or well being, a field which has been our particular province, but the emotional and moral factors in a child's development are essential to his well being, and as a matter of fact these play no small part in determining his physical fitness. A sound child health program must go beyond such matters as the establishment of some form of prenatal and postnatal supervision, infant welfare centers, hospital facilities, immunization campaigns, school hygiene and the like: it must include such things as parental education, housing, family stability, education, sports, recreation, etc., and, what I would term in a broad way, ethical training as to the rights of others and the rights and dignity of man.

Time does not permit of much discussion of the historical relationship between child health programs and national welfare. I would like to quote a brief excerpt from something I wrote several years before the present emergency was on the horizon, in a discussion of this relationship between child health programs and national welfare.

> "Without going back into remote history we can illustrate this point by citing the influence of the recent World War in the development of child hygiene in the United States. The nation at large was appalled by the physical status of our youth as disclosed by the draft. Previous to the war but five states had organized divisions of child hygiene. Within five years after the end of the war such divisions were organized in forty-three states and many cities. The Boer War was the influence back of much of the child hygiene movement in Great Britain."

May I take the liberty of ending this theme with another quotation from an address on "Pediatric Trends" made last October before the Pennsylvania State Medical Society.

> "If I were to venture certain prophecies today, the one I feel most certain of is that the present emergency, whatever its outcome, will lead to the acceptance of more responsibility for the child on the part of the government, and a more intensive development of child health activities on the part of the state."

All this sums up to the simple fact that a sound healthy youth is the most vital factor in national defense, and whether our youth is sound depends upon their physical, mental and emotional development during childhood.

### Europe and Its Program

Many times since the start of the European chaos two years ago, I have thought of the summers of 1931, 1936 and 1937. In 1936 we were spending the summer along the coast of Brittany and Normandy. Suddenly our quiet peaceful life was interrupted by an overwhelming influx of trains and bus loads of people from the interior industrial areas of France. It was the "vacation on pay" which had been instituted that June by the "Front Populaire" government. Never had I seen such a disorganized mob of pale, soft, malnourished, unkempt, and dirty children as appeared on the beaches. Impetigo was rampant. The sports and play activities were puerile. I had the feeling that I had never seen a group so in need of fresh air, sunshine, exercise and proper nourishment. This was the material upon which the future French Army was to be built and upon which the fate of France was to depend.

In 1931 we had been in Germany for a short visit for the first time since the war. It was all so altered and depressed that we felt we never wanted to go back again, but wished to hold the memory of old Germany in the time of our student days more than twenty years previously. Reports became so interesting and so conflicting a few years later, however, that we decided to visit it again in the summer of 1937, following the France summer, to see for ourselves what it was all about, and a six weeks' motor trip was worked out taking us through many parts of Germany.

**Quite frankly and honestly I regard the change that had taken place in Germany between 1931 and 1937 as one of the most remarkable things I have ever witnessed. This does not mean approval, as I would loathe to live a day under a form of totalitarian government and all it implies. The thing that interested me the most was the youth of Germany. I had never seen such a splendid physical youth as I saw in Germany that summer, hiking, cycling, working, singing and happy. The contrast with the French youth seen the previous summer was striking. It was this Hitler-jügend that made possible the military events of the past two years, as it formed the basis of the German Army of today. This is not the place to go into details of this physical training and development, the outdoor life, the summer work periods, the scientific program of feeding and hardening. The wrong of it, the crime of it, was not in this program of physical training, but in the simultaneous emotional conditioning of this youth to ideals which are despicable.**

### The Challenge to U. S. A.

It seems to me that in this we have the picture, and it is why I am so insistent that a program of child health in the United States must in the future be more than simply the medical or physical aspects. We are calling on our youth to defend us and our nation against the challenge of those who would impose upon us their own way of life and ideology. If we ask them to meet this challenge is it not only essential, but fair, that we should do everything to assure them a physical fitness commensurate with the task? It is equally essential that they be conditioned, one might put it in the reverse of the German way, to the view that the ideals of a democracy are worth living and fighting for.

I fully realize the ethical implications of such an attitude. To my own mind a child health program does not need the military goal as an objective, but rather that it shall be a means toward a happy full life. But we are not discussing ethics, and the only point I am trying to make is that matters of national defense and welfare are closely related to national health programs. If I have transgressed into personal reminiscences in an address before a scientific assembly it is simply because this personal experience has made the subject so graphic to me.

There are no problems facing us which cannot be met if we use our intelligence and common sense, and perhaps sink a little of our individual selfishness in better team play. Certainly food—the absolute lack of food at least—need never be a problem as it has been in the old world, and what we need in a nutritional program is chiefly a question of education and changed habits.

We have made enormous strides in the past few years in the health of children, and if children do not receive medical care and supervision the fault lies chiefly in medical distribution and the failure for one reason or another to utilize our present scientific knowledge. Perhaps the correction of the faulty distribution and utilization can be met only by more tax-supported public health medical services. If this is so we must face it, as it will take place despite any and all opposition of those who maintain a standpat attitude on questions of medical economics.

Let us be realists. If as a nation we have, unfortunately, found it necessary to call our youth as an army for national defense, the importance of physical fitness is certainly one of paramount national importance. Our child health methods and institutions have developed rapidly in the United States in the last twenty years but the results of the present selective service act show that we have much to do. I think the pattern of the program is sound and what is chiefly needed is the extension and the intensification of efforts.

### Specific Problems

*Defense Industry Areas*

What I have said so far, I realize as well as you, is very general in nature. There are two matters for discussion which are more specific and somewhat less philosophic. An acute urgent problem which has developed within the last half year and whose importance has been driven home even more this month with the opening of schools has resulted from the rapid development of army cantonments and munition works. These vast building and industrial programs have led to the migration of thousands of workers and hundreds of families with children. As a rule these constructions are in rural areas or in

the undeveloped environs of our cities where general living, housing, and school facilities have been quite inadequate for the influx of workers. Despite the efforts to provide housing, the living facilities, water supply, transportation, sewage, etc., are quite unsatisfactory in many places. The medical situation has been bad at times. Our older established physicians have hesitated to go along with this mass movement which they regard to a large extent as temporary, while the younger men who might under ordinary circumstances be available have been called to military service. I have been told that in some of these areas it has been almost impossible to obtain physicians, but that osteopaths and chiropractors have been herding in. Our county and state boards of health as well as the national health services have been active and struggling to cope with the general health situation. It has been difficult to find men trained in pediatrics for work in these areas even on adequate salaries. It seems apparent that government-maintained clinics for children, if not for adult workers, must be developed to furnish medical care for some of these defense developments. In one rural school only a few miles from my home, a school without medical health services, over 170 children were registered the day after Labor Day for a school with facilities for only 40 children. All had moved in during the summer as a result of defense projects. This is an acute emergency that must be immediately met if we are to maintain not only the health of our children but their morale.

### *Evacuation Problems*

Although, as I have pointed out, the problem of the child in national defense is largely one of a general nature when the country as a whole is considered, due to present-day methods of warfare there is one possibility that must be taken into consideration and for which we must be prepared, the aerial bombing of the civilian population. In the present situation where industry is a basic factor in carrying on modern warfare it is only logical that an enemy attacks the sources of supply. Industry, as it has been developed in the past, has led to the massing of the population and hence noncombatant women and children in strategic areas have been ruthlessly slaughtered in the attempt to destroy these sources. Again let us refrain from a discussion of ethics, but as realists face the facts before us. There are many sound, sane thinking individuals who, judging from what has happened in the past two years and considering the almost daily development of the airplane, think that sooner or later there will be bombing of some of our cities and towns. This will be centered on important industrial areas where munitions are being made, as well as strictly combatant military objectives. It is logical to believe that at first this will happen to our eastern seaboard areas rather than here in the Middle West. There is but one answer to this so far as children are concerned and that is their removal to areas where bombing would be a stupid military mistake and wasted effort.

We have given little thought to this in the Midwest, but the problem is being seriously faced and worked out by defense committees in some of our eastern states, and the English experience has been of great help and value in the formation of plans. While these plans have not been published and are incomplete, and in many details are only tentative and are still held in the committee as "confidential," I have permission to discuss the broad details of an evacuation plan for children as it is being formulated in one state, and some of the problems that must be solved. This particular state has seaports, large army and navy centers, railroad centers, power plants, and throughout the state a large number of cities and towns where vital munitions of many kinds are being made. The military authorities have designated some 80 areas in this state which they consider important to the enemy as points for airplane attacks. It is from these areas, some densely populated, that the children must be evacuated should need arise.

The children to be evacuated fall roughly into four groups, school children from five to fifteen years, children under five with their mothers, children handicapped in various ways as the crippled and blind, and the pregnant mother and unborn child.

By taking a state map and drawing circles with a diameter of three to five to ten miles about these eighty points, according to their extent and character, the areas to be evacuated are spotted. The areas outside the circles are considered as safe areas to which the children may be evacuated. This is only the beginning of the problem. Each area must be surveyed to find the child

population and each child registered. Questions of social status, race, and religion must be studied. Then comes the task of fitting them into safe areas, some of which will be found entirely unsuitable to take and care for children. In the suitable areas an intensive study must be made to find how many children can be placed and where they will be placed. Obviously further questions such as transportation, food and water supply, schools, et cetera, must be considered where the mass movement of hundreds or even thousands is being made.

There is not time to go thoroughly into the English experiences, but what happened abroad is of great value in formulating our own plans. The attempt to evacuate the civilian population of northern France ended in what can only be described as a catastrophe. Not only was it entirely unsatisfactory from the civilian standpoint, but it impeded military defense efforts. Plans for the evacuation of people from dangerous areas in England began to be formulated in May, 1938, and the plan was put into operation a few days before the outbreak of the war in September, 1939. In three days over 600,000 children and mothers, teachers, and attendants were evacuated from London; on the first day children of school age by rail, on the second day young children and pregnant women by rail, and on the third day the handicapped, insane and other special groups by bus. The supervising personnel consisted of about one person to every fifteen evacuated. The average evacuation distance was approximately fifty miles.

As it worked out it had many faults and drawbacks. Within a few weeks some 60 per cent had returned to their home partially due to the fact that no air raids were made on London, but chiefly to the inability of the women of the city to adjust to their new environment and their dissatisfaction at separation from their homes. The foster home plan was to a large extent a failure. As a result of this there has been a steady increase in the development of evacuation camps in preference to foster home and the building of these has been speedy. Evacuation since the start of aerial bombing has been carried out on a very large scale. It is apparently best to move the children by school groups with their teachers and school nurses. Pregnant women attend prenatal clinics in the cities until the last month, when they go to small towns to which the maternity services have been transferred and where the mothers remain for the last prenatal month and the month after delivery. Young children are best evacuated with their mothers. Evacuated children react best when moved to a social environment comparable to their previous one. It creates problems to move the children many times and hence it is wise to arrange that their first foster homes are permanent if possible. As far as possible the use of camps to house groups from the same community and school seems advisable.

Naturally the mass movement of children creates medical problems and perhaps we are mostly concerned with these details. The children moved in groups belong to the ordinary run of normal or average school children. In registration, the evacuation card for each child, which must be simple, should contain certain information of which the data as regards immunization and past infectious diseases are the most important. A rapid medical inspection must be arranged for at the time of evacuation, which obviously might be a hurried matter, to eliminate contagious disease, and to note skin conditions that must be treated and watched to prevent their spread. At the reception area where the children are to be kept, a previous survey must be made to determine the extent of available medical care. It is only reasonable to suppose that the medical group in many of the selected areas will be quite unable to give adequate medical care to a large group of children dumped precipitously upon them, and plans must be made in advance to provide assistance. It is in such a situation as this that our pediatric group will be in a position to serve in our national defense program to the greatest advantage of all concerned. In this particular state where the defense committee is organized on a broad basis of airwardens, fire protection, police, food supply, transportation, etc., it is interesting to note that much of the detail work of preparing an evacuation plan for children has been placed in the hands of the pediatric group.

While we all devoutly hope that it will never be necessary to put these plans into action, nevertheless it seems to me most wise that they are being prepared and will be ready. How much we should do here in the Midwest—here in Michigan and Missouri for example—I am uncertain. It does seem to me that it would be most wise for

our state defense committees to have the matter in mind, and to appoint sub-committees who could at least study what has happened and what has been done in England, and what is being done in the states where the problem is not so remote. It can do no harm if it is done quietly and without general publicity at the present time, and it is not beyond the realm of possibility that it would prevent a chaotic condition at some future time.

*The Pediatrician's Assignment*

The pediatric group has been aware of the importance of child health in the national defense program and over a year ago a special committee on national defense was appointed by the Academy of Pediatrics, which has been in constant contact with government agencies. It is our feeling that physicians with a specialized pediatric training are and will be of much more value and service working with the civilian problems than serving with the military forces, particularly so as modern warfare involves the civilian population as much or even more than the strictly armed forces to which warfare was to a large extent limited in the past. Their only particular medical training of military value lies in their knowledge of communicable diseases which have always been a military problem in time of war. The pediatric committee is now engaged in listing a group with particular training in communicable diseases so that they will be available and correctly assigned in their military duties if need arises. Of my own generation, man after man of the pediatricians served with troops in the First World War. Today with warfare a totally different proposition it seems wiser if they forsake the glory and glamour—if there is such a thing—of military life and serve where they are more needed and can be of more use in our national defense program.

**Summary**

In a general way we can say in summary that child health in a national defense program calls for no particular new measures over those of the peacetime program, except for adequate plans for the evacuation of children in case of actual warfare with bombing attacks, or invasion should take place. This you may be interested to know is also the viewpoint of the Canadian physicians involved in their national defense program with whom I discussed the matter a few weeks ago. What is needed is the extension of our programs to meet the needs created by our increasing industrial and military expansion for defense. With this the intensification of our peacetime efforts so that our children of today will be both physically and emotionally fit to meet the problems they must face in the years to come. No one can foresee the adjustments to living and the way of life as we have known it in the past two decades that will be necessary, but that they will be profound is beyond question.

We can be certain that the present emergency will give a marked stimulus to child health programs as national emergencies have done in the past. The same or similar measures which have been employed to develop a physically fit army, emotionally conditioned to wage a destructive warfare with the ideology of barbaric conquest, can, I believe, be used to create an equally efficient youth in our nation from a physical standpoint, but imbued with an ideology of the rights of man and the ideals of a democracy. This is the problem of child health in our national defense program.

MSMS

# Chemical Injuries of the Eyes*

**By Melvin H. Pike, M.D.**
**Midland, Michigan**

MELVIN H. PIKE, M.D.
*A.B., University of Michigan, 1927. M.S., University of Michigan, 1930. M.D., University of Michigan, 1932. Member, American Board in Ophthalmology; American Board in Otolaryngology; Michigan State Medical Society.*

■ OCULAR damage to the external parts and the anterior segment result from major and minor violent or accidental explosions and the splashing of potent chemical materials such as caustics, acids, lacrimating tear gases, sulfur dioxide refrigerant, lime, ammonia, benzene ring compounds, aniline dyes, and many inorganic substances such as lead, phosphorus, arsenic, corrosive sublimate and the like. Other injuries are seen as the result of mis-use or lack of realization of the damage possible from ordinary cos-

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metics and household chemicals. Tertiary butyl phenol when splashed onto skin or mucous membrane causes almost instantaneous death. Still other chemicals like the aniline dyes are prone to cause conjuctivitis and keratitis that defies complete understanding and classification. The manufacture of ethylene gives rise to fumes that react with the 42 per cent lead in Kryptoc bifocals turning them a powdery white and irritating the eye as well. In this paper the commoner and more serious eye injuries are considered. These are presented roughly in the order of their ability to damage.

Diagnosis of the injury offers little difficulty, and yet it is difficult to fully understand how the damage occurs. All should know how to lessen the effects and what to do after the first office call.

### Alkali

The most damaging of chemicals is probably ammonia. Usually when it has been splashed or forced into the eye, the patient has already soused his eyes with water.

**Guard your prognosis. What appears to be a fairly decent looking eye after all the washing shows more and more sloughing and necrosis day by day until the eye is lost.**

In less extreme cases intense chemosis and iritis ensue due to necrotic tissue and ammonium hydroxide in the anterior chamber. The reason for all this is found in the strong hydrophilic characteristic of amonia and its easy permeability through the cornea. Water is increasingly extracted from adjacent tissues causing the formation of albuminates and a spreading necrosis unequalled by any other substance. Strong ammonia fumes have caused corneal changes and in one case, a marked iritis in repeated attacks. The treatment should be irrigation and paracentesis; the latter procedure repeated daily if needed to empty the aqueous, which is now ammonium hydroxide, and albuminous material.

Caustic potash or soda, and caustic mixtures of ferric chloride, corrosive sublimate, barium sulphate produce more severe injury than like acid burns. However, one drop of strong nitric or sulphuric acid can effectively destroy the eye. Often flying particles of glass and metal of the original containing vessel are embedded in skin, conjunctiva, and cornea. Caustic burns vary from chemosis to eschar and chalky whitening in the first few hours. These injured tissues soften and slough out. Copious and repeated irrigations of twice normal saline solution should be employed. After this a weak acetic acid solution may be used if it is desirable to use an eye for test-tube neutralization. The heat set free, though not much, is deleterious.

The further care of these eyes is almost never discussed in textbooks and journals. Nearly all the burns seen are associated with skin destruction on the lids. Crusts form and infection arises unless these crusts are mechanically removed at the earliest possible moment. The infected skin is then easily treated with tannic preparations, butesin picrate ointment, dyes, et cetera. I have used silver nitrate and tannic acid treatment with good results but do not put silver nitrate or mild silver proteinate into the eye after these burns. A worth-while study was recently published in the *Archives of Ophthalmology,* May, 1941, by Calvery, Lightbody, and Rones on "Effects of Some Silver Salts on the Eye." Not only do corrosive and deleterious results ensue to the point of extensive scar tissue formation and even blindness, but dark silver staining occurs from a single application of silver on the cornea. Rones showed complete destruction of rabbits' eyes with 12 per cent silver nitrate. Again, these severe burns become purulent and in most small towns only a few nurses can adequately wash out the slough and purulent accumulations. *No burn gets well except by prevention of infection, cleanliness, and constant attention.* General practitioners are loath to go about cleansing these eyes and it is a definite duty to clean them. As to whether neutralization should be used after alkali burns and not after acid burns I feel that it is relatively less important. The eyes must be cleaned, and if need be, the patient hospitalized to have this done with subsequent instillation of antiseptic ointments and solutions which aid and promote the antibacterial action of lysozyme in the tears.

The use of slitlamp whenever possible will soon prove that many of these burns reveal evidence of iritis in the first twenty-four hours. Posterior synechiæ and iris pigment freshly stuck by fibrinous exudates to the lens capsule can be seen with a fountain pen flashlight. In older patients, particularly, a definite sudden rise in the

intra-ocular tension is likely. I use a daily paracentesis as long as needed while continuing with the atropinization. I do paracenteses, of course, and the results have been much better than when not used. Pressure is removed from the cornea promoting the flow of lymph and healing cells. Atropine penetrates into the eye better as must also some other solutions. It is an office procedure which is seldom criticized.

Conjunctival and corneal chemosis was common previously, but infrequent in recent cases, coincident with the use of twice normal saline solution as in irrigating fluid. In the *Archives of Ophthalmology,* April, 1941, Cogan described under the title, "Some Practical Considerations Pertaining to Corneal Edema," this same procedure. Other worth-while supporting treatment is in the administration of large doses of vitamin A. The use of riboflavin, pantothenic acid and ascorbic acid by mouth is urged. All of this treatment aims toward ultimate corneal transparency necessary to preservation of vision.

### Corneal Histopathology

Corneal histopathology must be discussed in some detail at this point. The ultimate corneal transparency is dependent on the fluid content and the refractive index of the media. When the protecting epithelium and Bowman's membrane is destroyed, fluid enters, the corneal stroma swells, and turns opaque. The most common change to follow is infection and resulting inflammation causes still more destruction to the tissue and its transparency. Degenerative changes then set in. There is frequently an increase in the wandering and fixed cells, an increase in the fibroblasts, and an ingrowth of blood vessels from the limbic area when all is well with the injured eye. But when it does not heal, more strenuous efforts are made with large dilated vascular masses while adjacent necrosis may be extreme to the point of forming a Mooren's ulcer. Granulation tissue grows into Mooren's and conjunctival defects and often the epithelium tends to cover these masses. Granulations may be removed by clipping or limited applications to these areas of trichloracetic or similar caustic substances.

If the burns are not deep, even though they are extensive, healing occurs, by primary intent or by the original type of tissue. In other words, small defects in the epithelium and Bowman's are healed in by epithelialization. Inequalities are filled in even when as much as 75 per cent of the cornea is denuded, leaving most of Bowman's and some of the epithelium in clumps scattered across the cornea. When the burns are deeper much of Bowman's and the substantia propria are destroyed; and the epithelium alone cannot repair the damage itself. The corneal nerves are destroyed and no pain is experienced. Neurotrophic disturbances result and infections are prone to invade the tissue. Corneal epithelium forms plugs down into the destroyed areas; corpuscles proliferate and fibrous tissue forms to fill in the defects gradually. The deeper the burns the more the wounds are repaired by denser permanent scar tissue. The epithelium thins out until it equals the epithelium covering the normal parts of the cornea. Bowman's membrane does not reform but the hyaline-like masses seem to represent efforts in this direction. Weeks pass in this mode of healing by secondary intent. There is always residual loss of vision.

### Complications

Secondary purulent conjunctivitis and suppurative keratitis make their appearance. If the keratitis is severe it becomes ulcerative and this varies with the type of infecting agent. When it is due to the pneumococcus it is unusually severe and is clinically an ulcus serpens. Bacteria grow luxuriantly and the ulcer spreads in the direction of their greatest growth, while it slowly heals behind. The movement of the ulcer gives it its name. If the infection is deep it can finally cause a posterior abscess, hypopyon, and and iridocyclitis. Other purulent ulcers are more indolent, but, in all, the results are not good. The nonpurulent forms of keratitis, syphilis and tuberculosis, may complicate and delay healing of an otherwise clean burn.

Not uncommonly and almost as a result of these traumatic changes we see recurrent corneal erosions. The typical story is that weeks or months after his injury the patient returns with a painful watery inflamed eye suffering much from photophobia. Fluorescein stains the denuded areas and one can often see other vesiculations. Gifford's handling of these has proven most useful; viz, subconjunctival paracentesis, pantocaine followed by ten to fifteen per cent trichloracetic on an applicator to the denuded areas. The eye is then bandaged for twenty-four

to forty-eight hours. It is carefully opened. This suffices to make the epithelium adherent to the scar below.

Symblepharon is a common and disturbing sequelæ. This can be prevented in large measure by diligently passing a smooth glass or metal rod into the fornices separating the plastic exudates which adhere so tenaciously and so quickly.

Occasionally skin burns require plastic surgery to allow them to close adequately. In less intense cases wild hairs make their appearance along the lid margins and elsewhere. These may be removed by inserting the negative pole electrolytic needle into the hair follicle. The hair bulbs can be destroyed without much scar tissue formation. Hairs appear in the other lid areas too but cause no trouble. These hairs are not newly formed, but were already present and so short that they did not protrude beyond the follicle mouths. Often secondary styes and skin boils recur in these less resistant skin areas.

The treatment of the corneal ulcers and the purulent conjunctivitis is well described in Gifford's Ocular Therapeutics. The germicidal effects of antiseptics used in the eye are not accurately measured by the phenol coefficient, and other attempts to rate them for their toxicity to tissue as well as their ability to kill bacteria are not much better. No one antiseptic has outstanding advantages. Silver nitrate is the most used because of its nonspecific activity and in particular for its desquamative action. Alum, copper, trichloracetic, Gifford's iodide syrup also do this. Desquamation is most useful when bacteria are growing and multiplying in the superficial layers of the epithelium. It is my belief that in most of these burns the epithelium is sufficiently desquamated and the bacteria are too deep to reach. When such bacteria as staphylococcus and the Morax-Axenfeld bacilli proliferate in the mucous film zinc is more useful. A thermophore is of great help. If a virus is present I use quinine bisulphate. Even if all the bacteria in the wounds could be destroyed there would remain a reservoir in the lacrimal sac, cilia along the lid margins, and in the meibomian glands. Antibacterial serums, desensitization, and foreign protein offer help. Typhoid H-antigen followed later by a paracentesis is very useful. In other parts of the body application of heat produces an active hyperemia with increased resistance to the infection but not so marked in these eye conditions. Cold applications in the early stages produce constriction of the small vessels and lessen the swelling.

Patients are kept in a darkened room and behind dark glasses to enable them to keep their eyes open. I have observed, as have Albert L. Brown, M.D., and others, that patients who keep their lids tightly closed or bury their head do not fare well. Dr. Brown believes that some inhibitory substance to the lysozyme of tears prevents the occurrence of any adequate anti-bacterial phase. He has used rabbit peritoneum sewed in between the lids and the ball of the eye (others have used egg membrane) to add to the supply of lysozyme and at the same time keep the inhibitory substance from infiltrating the bulbar conjunctiva and cornea so readily. In these operative measures irrigation can be done at the canthal aperture. I have not had sufficient nerve to try this yet, but after seeing many bad burns one contemplates how helpful this procedure might be.

### Other Types of Burns

The hot water and steam burns which I see are those in which the agents have been used to clean drums and pipe lines of some solidified or gummy material. Prognosis is withheld until the extent of the necrosis is determined on the second or third days. Acid type burns can show all the changes that have been discussed but are generally less intense and heal more rapidly. Acid mixtures are practically always in liquid form. Workmen are more aware of their ability to harm and fellow men instinctively reach for the water hose to flood the burns. Caustic materials are often in the form of a dry nonburning powder into which the hand can be dipped and shaken clean without damage. When caustic accidentally enters the eye the concentration seems to become greater at least for a limited time whereas acid burns immediately tend to become a more dilute solution.

The manufacture of new war gases and lacrimators creates more problems. Ordinary tear gas is chloracetphenone and is rendered ineffective according to W. P. McNally by the use of 0.4 per cent sodium sulphite dissolved in 75 per cent glycerine. For the benefit of a certain paperhanger we shall omit mentioning the other gases.

Lime burns may have a double action on the eye tissue. If it is the white powder of unslaked lime (CaO) water must be added to produce the hydrate of lime. Heat liberated in this water and lime union is not great but sufficient to be deleterious. The mixture is caustic in itself. The grayish white powder of slaked lime when mixed with tears is more caustic but does not liberate much heat. Soluble albuminates form which are readily diffusible into the eye causing serious destruction. The Barkans advocated using fresh solutions of neutral ammonium tartrate to make the calcium deposits in the cornea soluble. They employ it for days if needed.

Sulfur dioxide from refrigerating units can be as destructive to sight as any of the foregoing chemicals. In an accident of June 26 this year two men were injured under identical circumstances in the same accident. The original injuries to both eyes were therefore comparable in their outcome. One man stayed in the kitchen where the unit "blew" in order to rinse his eyes in the kitchen sink. The second man ran out doors in great agony holding his eyes. The one who washed his own eyes was far from comfortable but he went home. For first aid the second man was given argyrol to instil in his eye. About ten hours after the accident they were both brought in. The first, who had washed his eyes, had intense chemosis, tearing, photophobia and pain with a fair amount of his corneal epithelium gone; but it is interesting to note he was practically well in four days. The second man who had about the same I.Q. as the first refused to be hospitalized. Home troubles, too many advising relatives, and a distinct lack of nursing care mitigated against a good result even if it had been possible. He was free of pain but practically blind. These two men illustrate an unforgettable lesson. Even when delayed it is well to try irrigation and then neutralization with 3 per cent soda bicarbonate in 75 per cent glycerine.

Hot tar burns are not uncommon. They usually occur among roofers, welders, and so on. I never see any of the tar and the burns may often appear small on the cornea but enlarge unbelievably on the second and third days. There is no specific treatment.

Hydrogen sulphide is an irritant to corneal tissue without producing much epithelial damage. The stroma below becomes cloudy. Workers have a loss of visual acuity which clears up after rest for a few days. Rose bengal is used to stain the corneal stroma for lesions.

Most industrial dermatitis is contact dermatitis and should be discussed to refresh our minds. It is really dermatitis venenata, the characteristic lesions of which are erythema, edema, and vesiculation at the point of contact with the skin. Simple chemical compounds cause the superficial lesions, located chiefly in the epidermis. Contact dermatitis usually makes its appearance in a few hours or days following exposure to the chemical and the primary treatment is to remove the patient from his work. Contact dermatitis follows on top of burns at times from inorganic acids, bases, and salts; from hydrocarbons; from crude coal tar products; turpentines; chrome compounds; creosotes; resins; plastics; chlorinated benzene and naphthalene ring compounds. About 13 per cent occur on the face and about the eyes as against 47 per cent on the hands. The sooner a worker suffering from this condition is removed from his job the sooner he will get well. Warm boric dressings, potassium permanganate or aluminum acetate wet dressings, gentian violet stain and other applications may be valuable.

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# EDITORIAL

## PROCUREMENT AND ASSIGNMENT

■ THERE has been so much misinformation and misunderstanding regarding the activity of the Procurement and Assignment Committee and its relationship to the volunteer medical officer that a few simple statements should be made. From necessity these must be predicated upon the conditions existing in the middle of July but since most of these are statements of principle the possibility of drastic change is not likely.

A physician cannot become an officer in the medical corps of the United States Army or Navy except of his own free will and accord. Doctors are not *wanted* as officers of the medical corps of the United States armed forces *except* of their own free will and accord.

**The Procurement and Assignment Committee of each state is selected by the Government of the United States. This committee selects from each county an advisory local committee. While in most cases they represent the previously society-appointed Medical Preparedness Committee they do not function as a committee of the county or state medical society. The local committee have been asked to review the professional needs of the community to analyze each physician's value to the community. They were then asked to state whether each man in the age group is considered essential to the community or available for military service, bearing in mind the urgent need of the country in its desperate struggle against terrific odds for the survival of freedom. The actions of the local committee are purely advisory: the final decision being made by the Procurement and Assignment Committee of the state.**

This state committee can declare a physician essential to his community for varying periods, balancing the needs of the community and the needs of the armed forces. The length of the time he is considered essential will be based upon the future needs of home and army. During the period that he is considered essential by the committee, a commission will not be granted and he will not be drafted.

If one does not wish to become an officer in any United States medical corps he may signify it by not applying for a commission. If application has already been made for a commission unwillingness to serve is evidenced by not appearing for the physical examination. If the examination is completed and passed the commission may be refused when it is offered. There is no legal penalty at any step. Those who do not wish to become officers simply revert to the same status as any other citizens of the United States and the local draft board will call them to service in the same manner as any other citizen. There is only one exception: the fact that a commission in the medical corps was offered at a substantially higher monetary return than that of the ordinary soldier will be considered in determining the classification in 3A. Of course, at any time the army may refuse to offer anyone a commission again.

**If one does wish to be commissioned an officer in a United States army medical corps application should be made through the Medical Department Officer Recruiting Board who will authorize a physical examination. If this examination proves the applicant is physically fit a commission will be forthcoming provided he is not considered essential to the community by the state Procurement and Assignment Committee. Even this is not an insurmountable objection. A number of professional men have found substitutes for themselves in their communities and thus obtained a reclassification by the Procurement and Assignment Committee.**

The United States is in the midst of a desperate struggle for life. There is an acute shortage of medical officers. It is not a silly sentimentality to reiterate that the country needs them and if their absence does not seriously damage the health of the home community, the duty is clear.

A physician cannot become an officer in a United States medical corps except by voluntarily accepting a commission.

*The United States needs medical officers.*

## Postgraduate Conference on War Medicine

The 77th Annual Meeting of the Michigan State Medical Society will be held while the Nation is at war. The emphasis, therefore, of the three-day postgraduate conference will be on War Medicine. Outstanding lecturers from all parts of the country will bring to the meeting new developments gleaned from the world's experience of several years with war techniques.

To the physician who anticipates joining the armed forces of the United States, this meeting will be an important one. He will learn much of value to him in the military camp or in the field. But, for the doctor of medicine who must remain at home to bring necessary medical service to the civilian population, the 1942 Annual Meeting of his State Society will be a mine of necessary information, an opportunity which should not be missed.

Your President wishes you to consider this his personal invitation to you to attend the MSMS Annual Meeting in Grand Rapids next month. He urges you to seize this unusual chance to gain the latest knowledge concerning the practice of medicine in total war. Your three days at this postgraduate conference will bring you unlimited returns, beneficial to yourself, your patients and the community you serve.

Henry R Carstens

President, Michigan State Medical Society

*President's*

*Page*

*Civic Auditorium—Grand Rapids*

## DON'T MISS THE ANNUAL MEETING

For the second consecutive time the annual meeting of the Michigan State Medical Society is being held in Grand Rapids. Absence of many of the recent graduates has put increased burdens upon the older men. They must seek a review of the developments in medicine and their particular significance to the patient at home in order to preserve health more efficiently.

At the state meeting material is provided in capsule form enabling one to review in the shortest possible time this information obtained from those most qualified to give it. A simple examination of the program is all that is needed. In every field the subjects are covered completely, interestingly, and practically. Each program has been selected with that aim in view.

**The few days missed from the office will probably conserve years of time in the practice of medicine at home. Every practitioner owes it to himself and his community to be in Grand Rapids, September twenty-third to twenty-fifth.**

This second largest city of Michigan has been most coöperative in caring for the crowds which annually attend this instructive and entertaining meeting. Its auditorium facilities are unsurpassed and the hotels have been most considerate of the desires and needs of the two thousand doctors of medicine who attend. There are several hotels in Grand Rapids comparable to those in the very large metropolitan areas. The auditorium is connected by tunnel with one of the hotels and furnishes the best arrangement for exhibits which can be found in the state.

Any description of Grand Rapids would be very incomplete were one to omit mention of the many beautiful parks in and about the city. But chiefly the city is provided with wonderful facilities for golf. There are no less than eleven splendid golf courses in and around Grand Rapids. In addition to the private country clubs such as Cascade Hills, Highlands, Kent, and Blithefield there are a number of municipal and other public links, all of which are available to the members of the Michigan State Medical Society during the meeting.

**Reservations for rooms should be made immediately.**

## CALLED TO SERVICE

Henry R. Carstens, M.D., President of the Michigan State Medical Society, resigned July 15, 1942, to go on active duty in the armed forces of the United States.

Colonel Carstens is head of the Base Hospital Unit Number Seventeen (Harper Hospital) and is stationed at Fort Custer, Michigan. His call to duty has left a gapping hole in the forces of organized medicine in Michigan.

## ELECTED TO NATIONAL BOARD

J. Earl McIntyre, M.D., secretary of the Michigan State Board of Registration in Medicine in Michigan, has been elected a member of the National Board of Medical Examiners for a term of six years. Dr. McIntyre is the first doctor of medicine in Michigan to be elected to the National Board of Medical Examiners of the United States, and also the first and only member of the Michigan Board to be elected president of the Federation of State Medical Boards of the United States, which office he held last year.

J. Earl McIntyre

# THE 77TH ANNUAL MEETING

## A POSTGRADUATE CONFERENCE ON WAR MEDICINE

## GRAND RAPIDS — 1942

H. R. Carstens, M.D.
Detroit
*President*

A. S. Brunk, M.D.
Detroit
*Chairman of The Council*

P. L. Ledwidge, M.D.
Detroit
*Speaker of House of Delegates*

OFFICIAL CALL

THE Michigan State Medical Society will convene in Annual Session in Grand Rapids, Michigan, on September 21-22-23-24-25, 1942. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

Henry R. Carstens, M.D.
President

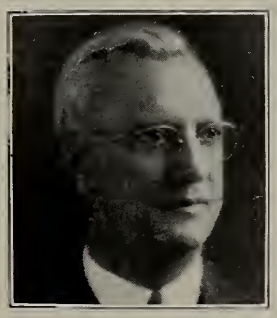
A. S. Brunk, M.D.
Council Chairman

P. L. Ledwidge, M.D.
Speaker

Attest:
L. Fernald Foster, M.D.
Secretary

L. Fernald Foster, M.D.
Bay City
*Secretary*

Wm. A. Hyland, M.D.
Grand Rapids
*Treasurer*



Howard H. Cummings
Ann Arbor
*President-Elect*

# Michigan State Medical Society

## Past Presidents 1866-1940

1866—*C. M. Stockwell, Port Huron
1867—*J. H. Jerome, Saginaw
1868—*Wm. H. DeCamp, Grand Rapids
1869—*Richard Inglis, Detroit
1870—*I. H. Bartholomew, Lansing
1871—*H. O. Hitchcock, Kalamazoo
1872—*Alonzo B. Palmer, Ann Arbor
1873—*E. W. Jenk, Detroit
1874—*R. C. Kedzie, Lansing
1875—*Wm. Brodie, Detroit
1876—*Abram Sager, Ann Arbor
1877—*Foster Pratt, Kalamazoo
1878—*Ed. Cox, Battle Creek
1879—*George K. Johnson, Grand Rapids
1880—*J. R. Thomas, Bay City
1881—*J. H. Jerome, Saginaw
1882—*Geo. W. Topping, DeWitt
1883—*A. F. Whelan, Hillsdale
1884—*Donald Maclean, Detroit
1885—*E. P. Christian, Wyandotte
1886—*Charles Shepard, Grand Rapids
1887—*T. A. McGraw, Detroit
1888—*S. S. French, Battle Creek
1889—*G. E. Frothingham, Detroit
1890—*L. W. Bliss, Saginaw
1891—*George E. Ranney, Lansing
1892—*Charles J. Lundy (died before taking office)
*Gilbert V. Chamberlain, Flint, Acting President
1893—*Eugene Boise, Grand Rapids
1894—*Henry O. Walker, Detroit
1895—*Victor C. Vaughan, Ann Arbor
1896—*Hugh McColl, Lapeer
1897—*Joseph B. Griswold, Grand Rapids
1898—*Ernest L. Shurly, Detroit
1899—*A. W. Alvord, Battle Creek
1900—*P. D. Patterson, Charlotte
1901—*Leartus Connor, Detroit
1902—*A. E. Bulson, Jackson
1903—*Wm. F. Breakey, Ann Arbor
1904—*B. D. Harison, Sault Ste. Marie
1905—*David Inglis, Detroit
1906—*Charles B. Stockwell, Port Huron
1907—*Hermon Ostrander, Kalamazoo
1908—*A. F. Lawbaugh, Calumet
1909—*J. H. Carstens, Detroit
1910—*C. B. Burr, Flint
1911—*D. Emmett Welsh, Grand Rapids
1912—*Wm. H. Sawyer, Hillsdale
1913—*Guy L. Kiefer, Detroit
1914— Reuben Peterson, Ann Arbor
1915—*A. W. Hornbogen, Marquette
1916— Andrew P. Biddle, Detroit
1917— Andrew P. Biddle, Detroit
1918— Arthur M. Hume, Owosso
1919— Charles H. Baker, Bay City
1920—*Angus McLean, Detroit
1921—*Wm. J. Kay, Lapeer
1922—*W. T. Dodge, Big Rapids
1923— Guy L. Connor, Detroit
1924—*C. C. Clancy, Port Huron
1925—*Cyrenus G. Darling, Ann Arbor
1926— J. B. Jackson, Kalamazoo
1927— Herbert E. Randall, Flint
1928— Louis J. Hirschman, Detroit
1929— J. D. Brook, Grandville
1930—*Ray C. Stone, Battle Creek
1931—*Carl F. Moll, Flint
1932— J. Milton Robb, Detroit
1933— George LeFevre, Muskegon
1934—*R. R. Smith, Grand Rapids
1935— Grover C. Penberthy, Detroit
1936— Henry E. Perry, Newberry
1937— Henry Cook, Flint
1938— Henry A. Luce, Detroit
1939— Burton R. Corbus, Grand Rapids
1940— Paul R. Urmston, Bay City

*Deceased.

# PRELIMINARY
# PROGRAM of GENERAL ASSEMBLIES

## WEDNESDAY MORNING
## September 23, 1942

### *First General Assembly*

**Black and Silver Ballroom—Civic Auditorium**
A. S. Brunk, M.D., Presiding

L. Fernald Foster, M.D., and H. M. Pollard, M.D., Secretaries

**A. M.**
**9:30 "Pelvic Tumors Complicating Pregnancy, Labor and Puerperium"**

Harvey B. Matthews, M.D., Brooklyn, New York

Harvey B. Matthews

*B.Sc., University of Texas, 1905; M.D., Columbia University, College of Physicians and Surgeons, 1909. Clinical Professor of Obstetrics and Gynecology, Long Island College of Medicine. Attending Obstetrician and Gynecologist, Long Island College and the Methodist Hospitals of Brooklyn. Fellow of American College of Surgeons, American Gynecological Society; Diplomate of American Board of Obstetrics and Gynecology; Fellow of American Association of Obstetricians, Gynecologists and Abdominal Surgeons.*

Many types of pelvic tumors have been reported complicating pregnancy, labor and puerperium. In this discussion only the benign uterine and ovarian, solid or cystic tumors will be considered. Fortunately, such tumors are less common during the most prolific stage of childbearing age and they are relatively rare at any stage of reproductive life. A clear conception of the size, location and condition of the tumor is highly desirable. Under given conditions, certain pathological changes may take place within the tumor which may lead to further complications. Accurate diagnosis is most desirable. Likewise what to do, how and when to do it are most important desiderata. Generally speaking, conservative management is indicated. However, operative treatment, both as regards tumor and/or the labor calls for sane and prompt decisions. Likewise certain complications demand operative interference during pregnancy and/or the puerperium. Report of small series of cases.

### TEN DISCUSSION CONFERENCES

These quiz periods will be held Wednesday and Thursday, September 23 and 24, at 3:30 to 4:30 p.m. An opportunity to ask questions concerning the presentation of the guest-essayists, or to discuss one of your interesting cases with them, will be provided.

Discussion Conferences on General Practice, Surgery, Syphilology, Obstetrics and Gynecology, and on Chemotherapy will be held Wednesday afternoon.

Discussion Conferences on General Practice, Ophthal-otolaryngology, Medicine, Pediatrics, and on Radiology, Pathology and Anesthesia, will be held Thursday afternoon.

Please submit your questions, on forms printed in the Program to the Secretary of the General Assembly immediately after the termination of the lecture, in order that the guest essayist may have time to consider same before the quiz period.

**10:00 "Cancer of the Rectum"**

Fred W. Rankin, M.D., Lexington, Kentucky

Fred W. Rankin

*B.A., Davidson College, North Carolina, 1905; M.D., University of Maryland, 1909; M.A., St. John's College, Baltimore, 1915; Sc.D., Davidson College, 1938; Sc.D., University of Maryland, 1939; Sc.D. University of Kentucky, 1942. Chief Consulting Surgeon to the Surgeon General, United States Army; clinical professor of surgery, University of Louisville; formerly associate professor of surgery, University of Minnesota Medical School, Mayo Foundation; surgeon to Mayo Clinic; president of American Medical Association, 1942; Colonel, Medical Reserve Corps, U. S. Army; member of Phi Beta Kappa, Beta Theta Pi, Sigma Xi, and Phi Chi.*

Rectal cancer is one of the most frequent lesions of the gastrointestinal tract and one which can routinely be diagnosed in every case. It is unnecessary to repeat platitudes about the symptomatology and ease of recognition of this lesion, but actually if a simple digital examination and a protoscopic examination were indulged in when there were symptoms of lower gastrointestinal tract disease, the diagnosis would be made in every instance and treatment instituted at a much earlier time in the existence of the disease.

For practical purposes one may say that the choice of treatment, except for operative risk, is radical surgery. This, of course, is for adenocarcinomas of the rectum and not for epitheliomas of the anal canal. There is no evidence today to prove that radiation or other methods of destruction by electrical apparatus cures rectal cancer. Radical removal is the hope of these cases.

A series of one-stage combined abdominoperineal resections is reported and the mortality figures and morbidity and survival rates are discussed. The operation is a formidable one which may be consummated by an expert surgeon with reasonable death rates. It is distinctly not an operation for the casual operator.

**10:30 Intermission to View Exhibits**

**11:00 "Venereal Disease in the Armed Forces"**

Joseph Earle Moore, M.D., Baltimore, Maryland

Joseph Earle Moore

*A.B., University of Kansas, 1914; M.D., Johns Hopkins, 1916. Assistant in medicine, instructor and associate Johns Hopkins 1916-23; assistant visiting physician Johns Hopkins Hospital 1923-29; Physician in charge Syphilis Division of Medical Clinic, Johns Hopkins Hospital since 1929; Associate Professor Johns Hopkins University; Special Consultant, U. S. Public Health Service; Consultant Maryland State Department of Health; Chairman, Subcommittee on Venereal Diseases, National Research Council; Adjunct Professor of Public Health Administration, Johns Hopkins School of Hygiene and Public Health. Served as 1st Lt. and Capt. Med. Corps, U.S.A. with A.E.F. 1917-1919; Maj. Med. Res. Corps, 1920-28. Author: The Modern Treatment of Syphilis, 1st ed. 1933; 2nd ed. 1941. Editor, Amer. Jour. Syphilis., Gonor. & Ven. Dis., since 1935.*

This paper discusses the military importance of the venereal diseases; presents data as to their past and current incidence in the Armed Forces; and discusses the control measures now in use by the United States Army and Navy.

# WEDNESDAY MORNING
# September 23, 1942

**11:30 "Management of the Barren Marriage"**

George H. Gardner, M.D., Chicago, Illinois

George H. Gardner

*A.B., Wittenberg College, 1917; M.D., Johns Hopkins University School of Medicine, 1921. Associate Professor of Gynecology, Northwestern University School of Medicine; Attending Gynecologist to Passavant, and Wesley Memorial Hospitals. F.A.C.S.; Diplomate American Board of Obstetrics and Gynecology.*

Women tend to assume full responsibility for their inability to become pregnant and most scientific papers dealing with this problem have been entitled "Female Sterility." However, the term "Barren Marriages" is more appropriate because it emphasizes the mutual responsibility of both the husband and the wife, in their failure to have children. The majority of barren marriages result, not from a single cause in one spouse, but from a multiplicity of factors in both; some may seem trivial but, added together, they are sufficient to prevent conception. Successful management, therefore, depends on adequate examination of both the husband and the wife, followed by systematic elimination of every contributing factor from each of them.

This presentation, first, enumerates the essentials of a diagnostic study which will reveal most factors that contribute to a couple's infertility. It then deals with the accepted present-day treatment for the contributing causes which occur in women.

**12:00 "Preventive Aspects of Maternal Mortality"**

Philip F. Williams, M.D., Philadelphia, Pennsylvania

Philip F. Williams

*M.D., School of Medicine, University of Pennsylvania, 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.*

An outstanding feature of practically all studies on maternal mortality is the high proportion of deaths regarded as avoidable. Responsibility for controlling such deaths have been assigned to patient, physician and the community. In the Philadelphia study, continuous since 1931, seven factors have been used in the final analysis of the cases: (1) Lack of prenatal care; (2) negligence of patient or her friends; (3) induction of abortion; (4) error in judgment; (5) error in technique; (6) intercurrent disease; (7) unavoidable disaster.

Each factor will be discussed from the standpoint of controllability.

# WEDNESDAY AFTERNOON
# September 23, 1942

## *Second General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

P. A. Riley, M.D., Presiding

L. Fernald Foster, M.D., and R. S. Siddall, M.D., Secretaries

**SYMPOSIUM ON CHEMOTHERAPY**

**P. M.**

**1:30 Sulfonamide Therapy in General Practice"**

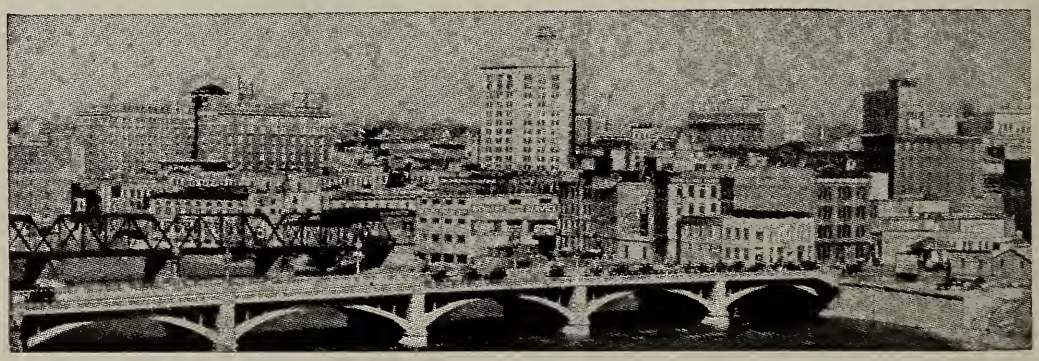
Harrison F. Flippin, M.D., Philadelphia, Pennsylvania

Harrison F. Flippin

*M.D., University of Virginia School of Medicine, 1933. Intern, Hospital of the University of Pennsylvania, 1933-35, Chief Medical Resident, 1935-36. Chairman, Committee of Pneumonia Research, Philadelphia General Hospital. Chairman, Committee for the Control of Pneumonia, Medical Society of Pennsylvania. Associate in Medicine, School of Medicine, University of Pennsylvania. Fellow of American College of Physicians.*

During the past seven years, the value of administering the sulfonamides in the prevention and treatment of a variety of infections has been recognized. To obtain maximum success with these drugs it is necessary to have an understanding of certain principles inherent in this type of chemotherapy. In this discussion emphasis will be placed upon presentation of the following factors responsible for the successful use of sulfanilamide and its derivatives in general practice.

1. Proper Selection of Drug
2. Early Treatment
3. Adequate Dosage
4. Detection of Drug Toxicity
5. Employment of Other Therapeutic Measures



*Grand Rapids, Michigan*

# WEDNESDAY AFTERNOON
## September 23, 1942

**P. M.**
**2:00 "Modern Management of Infections in the Urinary Tract"**

RUSSELL D. HERROLD, M.D., Chicago, Illinois

RUSSELL D. HERROLD

*S.B., Drake University, 1911; M.D., Rush Medical College, 1915. Associate Professor of Surgery (Urology), College of Medicine, University of Illinois, since 1935; member of staff, Research and Educational Hospitals. Member of Subcommittee on Venereal Diseases of the National Research Council. Served in World War I as Captain, M.C. Member of numerous scientific and medical organizations.*

A discussion will be given of sulfathiazole and sulfadiazine in the treatment of gonococcic infections, including optimum dosage, toxic manifestations, and problems connected with failures. Steps in the determination of cure are outlined. Important phases of the diagnosis and treatment of nonspecific prostatitis are summarized. The indications and contraindications for chemotherapy in infections of the bladder and upper urinary tract are reviewed. The administration of the sulfonamides for the prevention of instrumental reactions is emphasized. Lantern slides will be presented summarizing the important points in the various subdivisions of the subject.

**2:30 Intermission to View Exhibits**

# WEDNESDAY EVENING
## September 23, 1942

### *Third General Assembly*

***Public Meeting***

**Ballroom, Pantlind Hotel**

HENRY R. CARSTENS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

**PRESIDENT'S NIGHT**

**8:30 P. M.**

1. **Call to order by President Henry R. Carstens, M.D., Detroit.**
2. **Announcements and Reports of the House of Delegates, by Secretary L. Fernald Foster, M.D., Bay City.**
3. **President's Annal Address—Henry R. Carstens, M.D.**
4. **Induction of Howard H. Cummings, M.D., Ann Arbor, into office as President of the Michigan State Medical Society. Response.**
5. **Presentation of Scroll and Past-President's Key to Dr. Carstens by A. S. Brunk, M.D., Chairman of The Council.**
6. **Introduction of the President-Elect and other newly elected officers of the State Society.**

**9:00 P. M.**

7. **The Andrew P. Biddle Oration**
8. **Presentation of Biddle Oration Scroll.**

**10:00 P. M.**
**Entertainment and Dancing**

**End of Third General Assembly**

**TOMORROW YOU'LL FIND SOMETHING NEW IN THE SCIENTIFIC AND TECHNICAL EXHIBIT**

# THURSDAY MORNING
## September 24, 1942

### *Fourth General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

L. J. JOHNSON, M.D., Presiding
L. FERNALD FOSTER, M.D., and FRANK STILES, M.D., Secretaries

**A. M.**
**9:30 "Prolonged Labor"**

PHILIP F. WILLIAMS, M.D., Philadelphia, Pennsylvania

PHILIP F. WILLIAMS

*M.D., School of Medicine, University of Pennsylvania; 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.*

The occurrence of prolonged labor connotes some abnormal condition in either powers, passages or passenger. The incidence of, and etiological factors in prolonged labor in three hospitals have been analyzed. The incidence varies. The factors have been analyzed. Treatment has been reviewed. The circumstances surrounding 206 maternal deaths associated with prolonged labor occurring in Philadelphia in the past eleven years have been analyzed. Observations have been on the causes of death and method of handling these 206 cases.

**10:00 "Clinical Aspects of Arteriosclerosis"**

ROY W. SCOTT, M.D., Cleveland, Ohio

ROY W. SCOTT

*M.D., Western Reserve University School of Medicine, 1913. Professor of Clinical Medicine, Western Reserve University School of Medicine; Diplomate of American Board of Internal Medicine; Fellow American College of Physicians; Physician-in-Chief, Cleveland City Hospital.*

The major medical problem facing the physician is that of human arteriosclerosis which today is killing more people than any other disease and there is every reason to believe that it will be even a more serious problem for the doctor of tomorrow. All the major therapeutic advances of the past generation are prolonging life and yearly adding thousands of recruits to the army of the aged which is destined to succumb to those two affections characteristic of the later decades of life, namely, vascular decay and cancer. The clinical pictures exhibited by patients dealing with vascular disease in three vital beds—heart, brain and kidney—will be presented with some consideration of the problem of hypertension.

**10:30 Intermission to View Exhibits**

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*Postgraduate Credits* are given to every member who attends the Postgraduate Conference on War Medicine, the annual meeting of the Michigan State Medical Society, Wednesday, Thursday, Friday, September 23, 24, 25 at Grand Rapids.

**VIEW THE EXTRAORDINARY EXHIBIT DAILY**

**11:00 "The Nature and Experimental Treatment of Hypertension"**

IRVINE H. PAGE, M.D., Indianapolis, Indiana

IRVINE H. PAGE

*A.B., Chemistry, Cornell University, 1921; M.D., Cornell University, 1926; Presbyterian Hospital, New York, 1926-28; Kaiser Wilhelm Institute, 1931-37; Associate Member of Rockefeller Institute, 1928-31; Director of Clinical Research, Lilly Laboratory, Indianapolis City Hospital, 1937 to date; author of "Chemistry of the Brain."*

The evidence in favor of hypertension being due to chemical substances liberated from the kidney will be given. It will be shown that the substance named angiotonin when injected into animals and human beings quite closely reproduces the physiologic changes which are known to occur in hypertension produced experimentally in animals and spontaneously occurring in essential hypertension in man. Treatment of the disease in man will be discussed from the surgical and medical point of view. An attempt will be made to indicate that orderly progress is being made in the understanding of this disease which is killing more people than any other.

**11:30 "Hemorrhagic Disease of the Newborn"**

ARTHUR HAWLEY PARMELEE, M.D., Oak Park, Illinois

*A.B., Beloit College, 1905; M.D., Rush Medical College, 1911. Postgraduate Study in Vienna, 1924-1925 and 1931-1932. Professor of Pediatrics, University of Illinois (Rush). Attending Pediatrician, Presbyterian Hospital; Attending Pediatrician, Cook County Hospital, Member, American Pediatric Society, American Academy of Pediatrics, Board of Directors Infant Welfare Society of Chicago.*

The new interest aroused in this subject by the discovery of Vitamin K as essential for the production of prothrombin makes it seem wise to review the facts in order not to be led astray by premature conclusions.

First, it is necessary to define Hemorrhagic Disease of the Newborn so that we may know what is to be included in any statistical review. If petechial hemorrhage into the skin and mucous membranes, microscopic blood in the urine, minimal bleeding from the navel, coffee-ground vomitus in the first day of life, and cephalhematoma among many other benign symptoms are to be considered manifestations of hemorrhagic disease, the incidence will be very high. But if we should include only those cases which have a definitely prolonged coagulation time or bleeding time as proposed by some, the incidence will be very low.

Only a small number of the cases reported as cured can rightfully be accredited to the treatment employed if the list includes the usual cases of mild bleeding which tend to recover spontaneously. Are we justified in using the term Hypoprothrombinemia of the Newborn as synonymous with Hemorrhagic Disease of the Newborn?

If we review the factors concerned in the coagulation of the blood, we can see that there are many besides Prothrombin and Vitamin K to be considered. The case for hypoprothrombinemia is a strong one but there remain several questions to be satisfactorily answered before there can be complete acceptance of this as the chief, much less the only cause of Hemorrhagic Disease of the Newborn.

**12:00 "Diagnostic and Therapeutic Problems of Obesity"**

ELMER L. SEVRINGHAUS, M.D., Madison, Wisconsin

ELMER L. SEVRINGHAUS

*B.A., University of Wisconsin, 1916; M.A., Wisconsin, 1918; M.D., Harvard, 1921. Professor of Medicine since 1938; Physician to Wisconsin General Hospital; Past President Association for the Study of Internal Secretions; Member of numerous national medical societies; author of "Endocrine Therapy in General Practice"; co-author of "Vitamin Therapy in General Practice"; Editor of the Yearbook of Endocrinology.*

The synopsis of the paper will be as follows: Obesity is always caused by disproportion between the intake and expenditure of calories. Increased intake may be voluntary and conscious or not recognized because of several features. Sometimes there is excessive hunger due to hypoglycemia, habitual overfilling of the stomach, addition to concentrated foods, or social pressures for eating. Decreased expenditure of calories may be associated with physical handicap, hypothyroidism, psychological or economic handicaps at activity. There are certainly constitutional and genetic types of obesity. It seems impossible to make any distinct correlation with endocrine factors in the direct etiology, however. Clinical types will be illustrated and the therapeutic program on dietary restriction adaptable for different patients will be explained.

# THURSDAY AFTERNOON
# September 24, 1942

## *Fifth General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

R. J. HUBBELL, M.D., Presiding
L. FERNALD FOSTER, M.D., and H. B. ZEMMER, M.D., Secretaries

**P. M.**

**1:30 "Some Answers to Questions on Ophthalmology of the General Practitioners by Their Patients"**

MEYER WIENER, M.D., St. Louis, Missouri

MEYER WIENER

*M.D., Missouri Medical College, 1896; graduate study at University of Berlin, University of Heidelberg and University of Paris from 1897 to 1899. Professor of Clinical Ophthalomology, Washington University School of Medicine since 1910; Ophthalmic Surgeon, Missouri Pacific Hospital; also engaged in research and writing. Lt. Colonel in Medical Corps, U. S. Army, 1918; Diplomate of American Board of Ophthalmology; Fellow American College of Surgeons and member of numerous other medical and scientific organizations; Honorary Consultant to the Medical Department of the United States Navy.*

Doctor! Will my baby's eyes stay blue? Are brown eyes stronger than blue, or grey? Why are my baby's pupils so tiny? Or my little girl's so large? My baby sometimes looks cross-eyed or wall-eyed. Will it stay that way, or grow worse, or better? At what stage or age should a cross-eyed child wear glasses; and when should it be operated? Should drops be put in all newborn babies' eyes? Is light harmful to the eyes of a child with active measles? And will it harm if he uses his eyes for close work? What kind of colored glasses shall I wear at the seashore? These and many more will be answered.

# THURSDAY AFTERNOON
## September 24, 1942

**2:00 "Nephrosis and Nephritis"**
E. T. Bell, M.D., Minneapolis, Minnesota

E. T. Bell

*Professor and Head of the Department of Pathology, University of Minnesota. He has interested himself over a long period of time in the pathology of diseases of the kidney, particularly glomerulonephritis and hypertension kidney. He has also written a number of papers in other fields of pathology and has been interested for many years in surgical pathology. He is co-author and editor of Bell's "Textbook of Pathology."*

**230: Intermission to View Exhibits**

**3:00 "The Relationship of Anesthesiology to Medical Practice"**
Paul M. Wood, M.D., New York, New York

Paul M. Wood

*B.S., Columbia College, 1917; M.D., College of Physicians and Surgeons, 1922. Assistant Clinical Professor of Anesthesia, New York Medical College; Consulting and Attending Anesthetist to several New York hospitals; Fellow American Society of Anesthetists; Diplomate and Secretary-Treasurer, American Board of Anesthesia.*

The centennial of a major specialty in medicine is marked by a brief consideration of the dynamic development of Anesthesiology since Long's use of ether on March 30, 1842. Emphasis is laid on the discoveries through research, teaching, and clinical application. Its present integration with such associated fields as physics and chemistry, physiology and pharmacology, as seen in the laboratory, medical school, hospital and office, is discussed. A concept of the contributions which Anesthesiology may make to scientific knowledge, as well as to safer and more efficient clinical application in the practice of medicine, is presented.

# THURSDAY EVENING
## September 24, 1942

### *Sixth General Assembly*

**(For MSMS Members Only)**
**Ballroom, Pantlind Hotel**

G. Howard Southwick, M.D., Presiding
L. Fernald Foster, M.D., Secretary

**SMOKER**
**(Stag)**

**Admission by Card Only**

**Nine O'Clock**

**Refreshments**

**Music and Entertainment**

**Host: The Michigan State Medical Society**

## OUTLINE OF SECTION MEETINGS
### Friday Morning, September 25, 1942

| *Medicine* Ballroom, Pantlind 9:00 a.m. | *Obstetrics & Gynecology* Swiss Room, Pantlind 9:30 a.m. | *Surgery* Black & Silver Ballroom Civic Auditorium 9:00 a.m. | *Ophthalmology and Otolaryngology* Civic Auditorium | Red Room, Civic Auditorium *Anesthesia* Red Room, Civic Auditorium 9:30 a.m. |
|---|---|---|---|---|
| Paul H. Noth, M.D. Detroit | J. Wm. Peelen, M.D. Kalamazoo | W. D. Gatch, M.D. Indianapolis, Ind. | Ophthalmology Room F—9:00 a.m. | Edward H. Skinner, M.D. Kansas City, Mo. |
| Charley J. Smyth, M.D. Eloise | Gardiner Riley, M.S. Ann Arbor | C. Fremont Vale, M.D. Detroit | Henry A. Dunlap, M.D. Detroit | C. W. Muehlberger, Ph.D. Lansing |
| J. B. Youmans, M.D. Nashville, Tenn. | David J. Levy, M.D. Detroit | F. A. Coller, M.D. Ann Arbor | Meyer Wiener, M.D. St. Louis, Mo. | E. T. Bell, M.D. Minneapolis, Minn. |
| Clarke J. McColl, M.D. Dwight C. Ensign, M.D. Frank J. Sladen, M.D. Detroit | Franklin H. Top, M.D. Detroit | V. M. Butler, M.D. Detroit | Paul A. Chandler, M.D. Boston, Mass. | —Business Session— |
| Carl Heller, M.D. Detroit | W. C. Danforth, M.D. Evanston, Ill. | James E. Cole, M.D. Detroit | Harold F. Falls, M.D. Ann Arbor | *General Practice* Rooms B-C-D, Civic Auditorium 9:00 a.m. |
| Wm. C. Scott, M.D. Ann Arbor | —Luncheon— | | J. Conrad Gemeroy, M.D. Detroit | H. C. Guess, M.D. Buffalo, N. Y. |
| J. Burns Amberson, M.D. New York, N.Y. | | *Dermatology* Directors' Room Civic Auditorium 9:30 a.m. | Otolaryngology Room G—9:30 a.m. | Henry J. Kehoe, M.D. Detroit |
| *Pediatrics* Colonial Room, Pantlind 9.00 a.m. | *Pediatrics* (Continued) | Eugene S. Traub, M.D. New York, N. Y. | George S. Shambaugh, Jr., M.D., Chicago | Gordon B. Myers, M.D. Detroit |
| Charles F. McKhann, M.D. Ann Arbor | James Wilson, M.D. Detroit | L. A. Brunsting, M.D. Rochester, Minn. | Clifford F. Brunk, M.D. Detroit | Eugene Secord, M.D. Detroit |
| Don W. Gudakunst, M.D. New York | S. D. Kramer, M.D. Lansing | C. J. Marinus, M.D. Detroit | James H. Maxwell, M.D. Ann Arbor | M. S. Chambers, M.D. Flint |
| | Guest Speaker from Australia Bronson Crothers, M.D. Boston | —Luncheon— | J. Lewis Dill, M.D. Detroit | —Business Meeting— |
| | | | —Luncheon— | |

SECTION MEETINGS ON FRIDAY MORNING ONLY. DETAILED PROGRAMS ON PAGES 676-678.
Admission to all meetings by Badge Only. Register—Exhibit Floor—Civic Auditorium.

# PRELIMINARY
# — PROGRAM of SECTIONS —
# FRIDAY MORNING
# September 25,1942

## SECTION ON MEDICINE

Chairman: Gordon B. Myers, M.D., Detroit
Secretary: H. M. Pollard, M.D., Ann Arbor

**Ballroom, Pantlind Hotel**

**A. M.**

**9:00 to 9:20 "Digitalis Therapy in Cardiac Disease"**
Paul H. Noth, M.D., Detroit

**9:25 to 9:45 "Troublesome Problems in Circulatory Disease"**
Paul S. Barker, M.D., Ann Arbor

**9:50 to 10:10 "Significance and Management of Joint Pain"**
Charley J. Smyth, M.D., Eloise

**10:15 to 10:45 "The Clinical Importance of Protein in the Diet"**
J. B. Youmans, M.D., Nashville, Tennessee

J. B. Youmans, M.D.

*A.B., U. of Wis., 1915; M.S., 1916, and M.D., Johns Hopkins, 1919; interned, Milwaukee Children's Hospital; asst. in medicine, Johns Hopkins, 1921-22; instructor in internal medicine, U. of Mich., 1922-24; assistant professor of medicine, Vanderbilt, 1924-28; associate professor of medicine, 1928-40; director of postgraduate instruction since 1930; at present professor of medicine and acting head of department of medicine and physician-in-chief at Vanderbilt University Hospital.*

The biologic functions and requirements of protein in man, the manifestations of protein deficiency, its diagnosis, especially of the milder forms and treatment by various means are discussed in relation to various aspects of clinical medicine and the protein constituent of diet.

**10:50 to 11:10 "Present Day Gout—Report of Certain Diagnostic and Therapeutic Experiences"**
Clarke M. McColl, M.D., Dwight C. Ensign, M.D., and Frank J. Sladen, M.D., Detroit

**11:15 to 11:35 "Diagnosis and Treatment of the Male Climacteric"**
Carl Heller, M.D., Detroit

**11:40 to 12:10 "Clinical Interpretation of Early Tuberculosis"**
J. Burns Amberson, M.D., New York City
(Biography on Page 680.)

**12:15 Election of Officers**

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### PSORIASIS

Psoriasis has been the bête noir of physicians for many generations. Louis A. Brunsting, M.D., of Mayo Clinic is going to discuss "The Treatment of Psoriasis" at the Section Meeting on Dermatology, Friday, September 24. Dr. Brunsting, who has been very active in the research work on the therapy of psoriasis, also will present in a beautiful colored film a visual demonstration of the therapy. The Dermatological Section invites every practitioner to attend this timely presentation.

## SECTION ON SURGERY

Chairman: Roger V. Walker, M.D., Detroit
Secretary: Robt. H. Denham, M.D., Grand Rapids

**Black & Silver Ballroom, Civic Auditorium**

**A. M.**

**9:00 "Diagnosis and Treatment of Injuries of the Abdomen"**
W. D. Gatch, M.D., Indianapolis

W. D. Gatch, M.D.

*A.B., Indiana University, 1901. M.D., Johns Hopkins Medical School, 1907. Assistant Resident Surgeon, Johns Hopkins Hospital, 1907-1911. Resident Surgeon, Washington University Hospital, 1911. Professor of Surgery and Dean, Indiana University School of Medicine, 1930 —.*

Injuries of the abdomen divided into three groups:
Group I—With external signs of injury
Group II—Without external signs of injury
Group III — Abdominal symptoms due to injuries elsewhere.

The occurrence and symptoms of each group will be discussed along with the treatment.

The patient with penetrating wounds of the abdomen should be subjected to immediate laparotomy even though in relatively bad condition. Certain conditions under which laparotomy should be performed even when there is no external mark of injury.

Diagnosis and treatment of rupture of the diaphragm. This may occur as late as several weeks after the original injury and may be mistaken for coronary occlusion.

Anesthesia.

Proper incisions for treatment of abdominal injuries.

The use of the sulfonamide drugs and adjuvent treatments.

**9:40 "Some Surgical Problems in Ulcer Treatment"**
C. Fremont Vale, M.D., Detroit

**10:20 "The Local Use of the Sulfonamides in Surgery"**
F. A. Coller, M.D., Ann Arbor

**11:00 "Treatment of Burns in the Smaller Hospital"—illustrated by colored moving pictures***
Volney N. Butler, M.D., and
James E. Cole, M.D., Highland Park

**11:40 Question and Answer Period**

**12:15 Election of Officers**
(*Movie to be shown after the election of officers)

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## SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman: Robt. B. Kennedy, M.D., Detroit
Secretary: Roger S. Siddall, M.D., Detroit

**Swiss Room, Pantlind Hotel**

**A. M.**

**9:30 "Pregnancy Complicated by Acute Poliomyelitis"**
J. William Peelen, M.D., Kalamazoo

**9:50 "The Place of Hormone Assays in Clinical Medicine"**
Gardiner Riley, M.S., Ann Arbor

**10:10 "Diarrhea of the Newborn": Clinical Aspects**

DAVID J. LEVY, M.D., Detroit

**"Epidemiological Aspects and Methods of Control"**

FRANKLIN H. TOP, M.D., Detroit

**11:00 "Selection of Operation in Cases Requiring Hysterectomy"**

W. C. DANFORTH, M.D., Evanston, Ill.

W. C. DANFORTH

*M.D., Northwestern University Medical School, 1903; intern at Cook County Hospital, 1903-04; postgraduate study at University of Vienna, 1905-06. On the faculty of Northwestern University Medical School for many years as Associate Professor of Gynecology and Obstetrics until 1937; Professor since that date. Has contributed two text books, written one popular book and about sixty papers on various gynecological and obstetrical topics. Fellow, Institute of Medicine of Chicago and member of American Gynecological Society.*

Hysterectomy is a frequently performed operation. The employment of a fixed technic in all cases is inadvisable. The choice of operation should be made to fit individual conditions. Subtotal abdominal, total abdominal, and vaginal hysterectomy all have their place. Practice in active clinics tends to the more frequent removal of the entire uterus. Study of 1500 cases of various types is presented.

**12:00 Election of Officers**

**12:30 Luncheon**

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## SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: F. BRUCE FRALICK, M.D., Ann Arbor

Vice Chairman: DON M. HOWELL, M.D., Saginaw

Secretary: A. E. HAMMOND, M.D., Detroit

Vice Secretary: ANDRE CORTOPASSI, M.D., Saginaw

### OPHTHALMOLOGY
**Room F, Civic Auditorium**

**A. M.**

**9:00 "Vaccines in the Treatment of Uveitis"**

HENRY A. DUNLAP, M.D., Detroit

**9:20 "Transplantation of Preserved Tissue in Ophthalmic Surgery"**

MEYER WIENER, M.D., St. Louis, Mo.
(Biography on Page 674)

Transplantation of preserved tissue in ophthalmic surgery has been practiced for nearly forty years. More thought has been given to it recently, especially in work with the cornea and fascia. True transplantation most likely does not take place, but a replacement, with the graft acting as a supporting membrane.

Heterogenous grafts of cornea, bone, cartilage and fascia, preserved in various media, have been employed in eye surgery. Recently, transplantation of cornea from different species has been revived, with contradictory results. Little has been done with conjunctiva.

Progress of the author's experimental research with preserved, heterogenous conjunctiva on rabbits and monkeys will be discussed in this presentation.

**10:20 "Some Problems in the Treatment of Glaucoma"**

PAUL A. CHANDLER, M.D., Boston

PAUL A. CHANDLER

*M.D., Harvard Medical School, 1924. Instructor, Harvard Medical School; Surgeon, Massachusetts Eye and Ear Infirmary. Member New England Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, American Ophthalmological Society.*

Acute congestive glaucoma has very different manifestations from those of chronic glaucoma. A single attack is usually sufficient grounds for operation. Classical iridectomy is the operation of choice in early cases, but fails permanently to relieve the tension in the neglected cases some other type of operation is indicated here. The greater problem in the management of chronic glaucoma is to decide whether conservative treatment or surgery should be employed. Factors influencing this decision are the age of the patient, the condition of the lens, and the ocular tension. A great deal of helpful information for making this decision can be obtained by measuring the tension on several occasions during the day, without treatment and with various forms of miotic therapy. If operation should be decided upon one should choose the type of operation best suited to the individual case.

**11:20 "Exophthalmos in Children"**

HAROLD F. FALLS, M.D., Ann Arbor

**11:40 "Cataract Extraction with a Modified Dimitry Suction Syringe"**

J. CONRAD GEMEROY, M.D., Detroit

**12:00 Election of Officers of the Section**

**12:20 Luncheon of the Section**

### OTOLARYNGOLOGY
**Room G, Civic Auditorium**

**A. M.**

**9:30 "Nasal Allergy"**

GEORGE E. SHAMBAUGH, JR., M.D., Chicago
(Biography on Page 680)

The normal defense mechanisms of the nose and sinuses are sufficient to result in complete clearing of a great majority of all acute infections, if the tissues are put to rest. The chronicity of infections in the nose or sinus are due either to the type of infecting organism, usually anaerobic, or to an underlying allergy.

The majority of chronic sinus infections are due to a combination of infection and underlying allergy. Differentiation of the two types of chronic sinusitis is possible since each type has certain characteristics. These characteristics will be described and the diagnosis and treatment of the underlying allergic factor will be discussed. The best therapeutic results are when both the infection and the allergic factor are treated simutaneously.

**10:45 Discussion—15 minutes**

**11:00 "Bacterial Hypersensitivity; A Neglected Phase of Allergy"**

CLIFFORD F. BRUNK, M.D., Detroit

**11:20 Discussion—10 minutes**

**11:30 "Atlanto-axial Dislocation, Case Report"**

JAMES H. MAXWELL, M.D., Ann Arbor

**11:50 Discussion—10 minutes**

**P. M.**

**12:00 "Vertigo"**

J. LEWIS DILL, M.D., Detroit

**12:20 Discussion—10 minutes**

**12:30 Election of Officers of the Section**

**12:40 Luncheon of the Section**

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## SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: Claud W. Behn, M.D., Detroit
Secretary: Frank Stiles, M.D., Lansing

**Directors Room—Civic Auditorium**

**A. M.**

**9:30 "The Therapy of Nevi, All Types, and Their Relationship to Skin Malignancies"**
Eugene S. Traub, M.D., New York City

Eugene S. Traub

*B.S., 1916, and M.D., 1918, University of Michigan; Associate Clinical Professor of Dermatology and Syphilology, Skin and Cancer Unit, Postgraduate Medical School and Hospital, Columbia University. Consulting Dermatologist and Syphilologist to Centril Islip State Hospital, Nassau Hospital and Meadowbrook Hospital. Professor of Dermatology and Syphilology, University of Vermont. Consulting Dermatologist to Bishop DeGoesbriand Hospital, Burlington, Vermont. Fellow, Dermatological Section, New York Academy of York Dermatological Society and American Dermatological Association. Author of over thirty dermatological subjects.*

In dealing with a subject so comprehensive, it will be necessary to limit the discussion to the two principal types of nevi, namely the vascular and the pigmented. Despite many advances in therapy there still are decided differences of opinion as to what nevi should be treated and which should be left alone. Some suggest leaving them alone so that they may either disappear spontaneously or because of fear that treatment might convert a quiescent benign nevus into a malignant one. Such basic considerations in individual cases must be carefully weighed to determine the best procedure to be followed. If errors in judgment and management occur at this time, the most favorable opportunity to achieve a good result is usually lost and subsequent treatment becomes proportionately more difficult and unsatisfactory. Since some nevi may give rise to malignant growths, this fact must also determine our course of action. Fundamentals and actual procedures will be discussed in detail.

**10:00 Discussion**

**10:20 "The Treatment of Psoriasis," illustrated by colored movie**
Louis A. Brunsting, M.D., Rochester, Minn.
(Biography on Page 680)

From time to time, new fields of research awaken spurts of interest in the etiology and treatment of the age-old, baffling problem of psoriasis but most of these trails soon reach a dead end. Aside from its nuisance value and psychologic handicap to adolescents, psoriasis may cause real concern when the eruption is generalized or when it is associated with disabling complications such as psoriatic arthritis. In this latter condition there is usually a characteristic pattern of involvement and the management is of interest to dermatologists and internists alike. Lacking a cure for psoriasis, we find it important, especially in the widespread and complicated cases, to be able to offer a method of control which is efficient and economical. This is accomplished by the use of the Goeckerman regime which consists largely of inunctions of crude coal tar ointment and ultraviolet irradiation. The details of the technique which assure a favorable response in most instances are elaborated by colored motion pictures.

**10:50 Discussion**

**11:10 "Skin Diseases and Endocrinology"**
C. J. Marinus, M.D., Detroit

**11:40 Discussion**

**12:00 Election of Officers**

**P. M.**
**12:30 Luncheon at Pantlind Hotel**

## SECTION ON RADIOLOGY, PATHOLOGY, ANESTHESIA

Chairman: Frank Murphy, M.D., Detroit
Secretary: Donald C. Beaver, M.D., Detroit
Secretary: L. E. Holly, M.D., Muskegon

**Red Room, Civic Auditorium**

**A. M.**

**9:30 "Duodenal Ulcer as a Wartime Disease of Citizen and Soldier"**
Edward H. Skinner, M.D., Kansas City, Mo.

Edward H. Skinner

*M.D., Hahnemann Medical College and Hospital, Chicago, 1902; Diplomate of American Board of Radiology; Past President of American Roentgen Ray Society (1928), and American Radium Society (1936). He has been the delegate from the Section of Radiology to the American Medical Association for several years and is a member of the American Board of Radiology and a Chancellor of the American College of Radiology. He has contributed extensively to radiologic literature and has served on the Editorial Board of the American Journal of Roentgenology and Radiumtherapy for nearly twenty years. He was the Janeway Lecturer and Medalist of the American Radium Society last year.*

Reliable reports indicate that 20% of the English soldiers evacuated from Dunkerque developed duodenal ulcers. Numerous clinical reports in English medical literature assess 50% of gastrointestinal hospital admissions to radiologically diagnosed peptic ulcer. During the 1940 blitzkrieg over England the civilian population began to exhibit a distinct increase in the incidence of peptic ulcer. Peptic ulcer is an easy disease to simulate or malinger. Therefore, the roentgenographic demonstration of an actual lesion becomes an important factor in establishing the diagnosis. These new incidents serve to renew interest in the neurogenic, the dietetic and the infection theories upon the origin of duodenal or peptic ulcer.

**10:30 "Toxicology of War Cases"**
C. W. Muehlberger, Ph.D., Lansing, Mich.

**11:15 "Tumors of the Breast"**
E. T. Bell, M.D., Minneapolis, Minn.
(Biography on Page 675)

An analysis is made of 2,100 surgical specimens of breast tissue. The percentage of lesions of different types is tabulated. Tumors are classified from the clinical standpoint as follows: a single well defined mass (a) adherent, (b) non-adherent; multiple massses; acute carcinoma; Paget's disease; mastitis; and discharge from the nipple. The procedure to establish the diagnosis is discussed in each form. The histological appearances are shown in lantern slides. The relation of the age of the patient to the type of tumor is discussed.

**11:45 Discussion Period. Short Business Meeting Election of Officers**

## SECTION ON GENERAL PRACTICE

Chairman: Arch Walls, M.D., Detroit
Secretary: H. B. Zemmer, M.D., Lapeer

**Rooms B-C-D, Civic Auditorium**

**A. M.**
**9:00 "Evaluation of Rectal Examinations"**
H. C. Guess, M.D., Buffalo, N. Y.

H. C. Guess

*M.D., University of Buffalo, 1912; internship at Buffalo General Hospital, 1913-14; 1st Liuet, M.C., Merican Border Service, 1916; Captain, M.C., 65th Infantry, N.Y.G., 1917-18. Postgraduate studies in proctology at Poly Clinic, 1918; St. Marks, London, 1929; Fredreicksheim Kranenhaus, Berlin, 1929, and Harvard, 1929. Chief Proctologist Millard Fillmore Hospital and Buffalo Hospital Sisters of Charity. Attending Proctologist Edward J. Meyer Memorial Hospital. Consulting Proctologist J. N. Adam Memorial and Lafayette General Hospitals, Buffalo. Fellow American College of Surgeons and American Proctologic Society.*

A rectal examination is performed easily and quickly. The pain previously experienced during this examination has been minimized by the various anesthetic means for aiding an operator who studies the anatomy of the rectum and the anal canal.

Reluctance on the part of the patient, especially females, that formerly existed is today almost nil. Can as much be said regarding physicians in making rectal examinations? The more the general practitioner performs rectal examinations, the greater the number of earlier diagnosed cases of cancer will be recorded. Much suffering will be avoided, and a greater number of lives will be saved by adequate surgery. Eighty per cent of all cancers of the rectum may be determined by a digital examination.

Even our present armamentarium, radical surgery, requires early diagnosis for a complete cure of cancer of the rectum. Much time and money is wasted when a physician omits a rectal examination.

**9:40 Value and Limitations of Electrocardiography in General Medicine"**
Henry J. Kehoe, M.D., Detroit

**10:20 "The Newer Developments in the Use of the Sulfonamides, and Complications"**
Gordon B. Myers, M.D., Detroit

**10:50 "Office Treatment of the Common Orthopedic Complaints"**
Eugene Secord, M.D., Detroit

**11:30 "Shock (Peripheral Circulatory Failure)"**
Myrton S. Chambers, M.D., Flint

**12:10 Business Meeting. Election of Officers.**
**(Ten minutes discussion after each talk)**

## SECTION ON PEDIATRICS

Chairman: John Sander, M.D., Lansing
Secretary: Leon DeVel, M.D., Grand Rapids

**Colonial Room, Pantlind Hotel**

**A. M.**
**9:00 Round Table on "Poliomyelitis"**

Charles F. McKhann, M.D., Ann Arbor, Chairman
Don W. Gudakunst, M.D., New York
James Wilson, M.D., Detroit
S. D. Kramer, M.D., Lansing
Sister Elizabeth Kenny, Guest Speaker from Australia
Moving picture and lantern slide demonstration

**10:45 Recess**

**11:00 "Prognosis After Injury or Infection of the Nervous System in Childhood"**
Bronson Crothers, M.D., Boston

Bronson Crothers

*A.B., 1905, and M.D., 1910, Harvard University, Assistant Professor Pediatrics, Harvard Medical School, Member American Medical Association, etc., American Pediatric Society, American Neurological Association, etc. Author of "A Pediatrician in Search of Mental Hygiene" and various papers in neurological and pediatric journals.*

Recovery after injury or infections of young children is difficult to define unless growth and development are taken into consideration. This is particularly true if attention is given to the nervous system. It is obvious that recovery is inadequate if mere restitution to a previously attained status is achieved. The process cannot be regarded as complete until evidence is available which indicates that the child is going along a developmental road which leads to orderly and effective education and eventual general adequacy.

Any attempt to carry out investigation of this sort demands patience and assistance from skilled psychologists and social workers. The implications of such a study, however, are relatively clear and perhaps useful.

The major value of the approach is related to the medical and educational management of children during the months or even years which may elapse before a durable prognosis can be made.

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*SMOKER (Stag)*

Thursday, September 24 at 9:00 p.m., Ballroom, Pantlind Hotel. Admission by card to members only.

*MSMS Hospitality Booth.* The Michigan State Medical Society Headquarters will be in the "Hospitality Booth" opposite the Registration Desk in the Exhibit Hall of the Civic Auditorium. MSMS Councilors and Officers will be in attendance at all times.

Members are invited to stop at the Hospitality Booth and meet the President, the President-elect, the Council Chairman and other MSMS officers.

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*Michigan Medical Service.* The Third Annual Meeting of the Michigan Medical Service Membership will be held Tuesday, September 22, at 2 p.m. in the Ballroom of the Pantlind Hotel.

Members of Michigan Medical Service are all the members of the MSMS House of Delegates plus the Directors of Michigan Medical Service. The Officers' Reports and Election of Directors will be on the Agenda of the Annual Meeting.

# FRIDAY AFTERNOON
# September 25, 1942

## *Seventh General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

P. L. Ledwidge, M.D., Presiding

L. Fernald Foster, M.D., and R. H. Denham, M.D., Secretaries

**P. M.**

**1:30 "Deafness or Impaired Hearing"**

George E. Shambaugh, Jr., M.D., Chicago, Illinois

George E. Shambaugh

*A.B., Amherst College, 1924; M.D., Harvard Medical School, 1928. Chairman, Dept. of Otolaryngology, Rush Medical College, 1938-41; Associate Professor of Otolaryngology, Univ. of Ill., 1941; Consultant in Otology, Municipal Contagious Disease Hospital, Chicago, 1934-41; Assistant Professor of Otolaryngology, Northwestern University Medical School, 1942 to present.*

A duty and responsibility of the family physician is to guide and direct hard of hearing and deafened patients away from useless treatment and lower the possibility of alleviation or cure when such exists.

Complete deafness is rare and is always due to destruction of the perceptive mechanism in the ear. Nothing can be done except special training in lip reading and speech.

Impaired hearing may be due to lesions of the sound conduction apparatus or perceptive mechanism and in each case appropriate tests indicate the location of the pathology. As a rule lesions of the perceptive mechanism are not amendable to treatment, but efforts should be made to remove any etiological factor to prevent further loss. On the other hand impaired hearing due to lesions of the conductive apparatus can be improved or restored at the present time in the majority of cases by appropriate medical or surgical means. These treatments, including the Fenestration Operation for Otosclerosis will be briefly described, and the results of these treatments in a series of cases will be presented.

**2:00 "Pyogenic Infections of the Skin, Particularly Hidradenitis Suppurative"**

Louis A. Brunsting, M.D., Rochester, Minnesota

Louis A. Brunsting

*Consultant in Dermatology and Syphilology, The Mayo Clinic and Associate Professor in Dermatology and Syphilology The Mayo Foundation, University of Minnesota Graduate School at Rochester, Minnesota. Born July 7, 1900, at Grand Rapids, Michigan; attended John Calvin College and Grand Rapids Junior College; M.D. in 1924, University of Michigan; intern at Blodgett Memorial Hospital, Grand Rapids, and practiced in Nashville, Michigan, for nine months. Entered the Mayo Foundation as a Fellow in Dermatology and Syphilology April 1, 1926, and received the degree of M.S. in Dermatology and Syphilolgy in 1929 from the University of Minnesota. Member of American Dermatological Association, American Academy of Dermatology, Society for Investigative Dermatology, Minnesota and Chicago Dermatological Societies.*

In the study of pyogenic disorders of the skin there has been, in general, too much emphasis on the invading organisms and too little on the host or on the qualities that make up a favorable soil. This paper emphasizes a not uncommon form of pyoderma known as hidradenitis suppurativa which is characterized by chronic and recurrent burrowing abscesses and sinuses of the apocrine-gland bearing zones of the body, the axillæ, inguinal folds, genitalia, perineum, perianal regions and, in obese females, the lower half of the dependent breasts. Treatment must be individualized to include measures of general hygiene, the use of sulfonamide drugs, roentgen therapy and often surgical excision and grafting of the sites.

**2:30 Intermission to View Exhibits**

**3:00 "Newlyborn Period as a Public Health Problem"**

Clifford G. Grulee, M.D., Evanston, Illinois

Clifford G. Grulee

*M.D. Northwestern University Medical School, 1903; has taught at Rush Medical College since 1908; Head of Department from 1919 on; now Rush Professor of Pediatrics, Medical School of the University of Illinois; during World War I was Assistant Chief of the Children's Bureau, American Red Cross in France; since 1924, Chief Editor of the American Journal of Diseases of Children; since 1929, Secretary, American Academy of Pediatrics.*

The problem of the care of the newborn has changed so rapidly in the last few years with the increase of hospital care for deliveries that new problems have to be met and new situations encountered. As a consequence we must review the whole problem of the care of the newlyborn infant with this in view. Mortality statistics show some reduction but not sufficient. The matter of maternal nursing is one of the most serious problems to be met and conquered. Other conditions such as epidemic diarrhea, impetigo, septicemia and especially prematurity must be considered and ones which must be met with all newer factors in view. Question of the newborn nursery and the place of the public health authorities in control are subjects for our examination.

**3:30 "Significance of Unresolved, Organizing, or Protracted Pneumonia"**

J. Burns Amberson, M.D., New York, New York

**4:00 "Postoperative Gastro-intestinal Disturbances"**

Charles B. Puestow, M.D., Chicago, Illinois

Charles B. Puestow

*B.S., U. of Wisconsin, 1923; M.D., University of Pennsylvania, 1925; intern at U. of Pa. Hospital, two years. First assistant to C. H. Frazier, Professor of Surgery, U. of Pa. Fellow in Surgery, Mayo Foundation, four years. Master of Science in Experimental Surgery, 1931, and Ph.D. in Surgery, 1932, University of Minnesota. Since 1931 member of faculty U. of Illinois College of Medicine, and Surgeon to the Illinois Research and Educational Hospitals. Since 1937, Associate Professor of Surgery, University of Illinois, College of Medicine and Graduate Medicine. Writer of numerous medical articles and books.*

Disturbances of gastrointestinal motility comprise some of our most distressing morbidity factors. These consist of nausea, vomiting, distention, and fas pains. These are chiefly the result of altered intestinal peristalsis and are influenced by a variety of factors, among which are: types and depth of anesthesia; mechanical trauma to the gastrointestinal tract; fluid balance; the nature and time of the initiation of postoperative feeding; and the influence of drugs. Studies have been made on these various factors which we believe shed some light on the causes and methods of prevention of such surgical complications.

COUNTY SECRETARIES' CONFERENCE

Furniture Club, Pantlind Hotel

Wednesday, September 23, 1942

LUNCHEON—12 to 1:30 P. M.

D. C. Bloemendaal, M.D., Zeeland, Presiding

PROGRAM

1. "The Michigan Picture in Medicine (10 min.)
   L. Fernald Foster, M.D., Bay City
   Secretary, Michigan State Medical Society

2. "Procurement and Assignment" (30 min.)
   Lt. Colonel Sam F. Seeley, M.C.,
   Exec. Officer, Procurement & Assignment
   Service, Washington, D. C.

**All Members of the State Society will be Welcomed at this Conference**

# HOUSE OF DELEGATES, 1942

## REFERENCE COMMITTEES

### Credentials Committee

J. J. O'Meara, M.D., **Chairman**

D. C. Stephens, M.D. — Hazen L. Miller, M.D.
C. W. Oakes, M.D. — E. G. Bovill, M.D.

### On Officers' Reports—Room 122

C. E. Toshach, M. D., **Chairman**

W. B. Harm, M.D. — C. D. Brooks, M.D.
Don V. Hargrave, M.D. — Gordon Yeo, M.D.

### On Reports of The Council—Parlor B

Joseph Andries, M.D., **Chairman**

Frank Reeder, M.D. — A. T. Hafford, M.D.
Grover C. Penberthy, M.D. — A. V. Wenger, M.D.

### On Reports of Standing Committees—Room 124

O. D. Stryker, M.D., **Chairman**

L. W. Gerstner, M.D. — Volney Butler, M.D.
L. J. Morand, M.D. — H. T. Sethney, M.D.
Charles S. Kennedy, M.D. — D. Bruce Wiley, M.D.
Donald Thorup, M.D. — R. K. Hart, M.D.

### On Reports of Special Committees—Room 126

Stanley W. Insley, M.D., **Chairman**

V. C. Abbott, M.D. — M. G. Becker, M.D.
J. J. Walch, M.D. — D. J. O'Brien, M.D.
W. H. Alexander, M.D. — Wm. S. Gonne, M.D.

### On Amendments to Constitution and By-Laws—Room 127

C. L. Hess, M.D., **Chairman**

John A. Wessinger, M.D. — David I. Sugar, M.D.
H. W. Plaggemeyer, M.D. — W. D. Barrett, M.D.

### On Resolutions—Room 128

A. E. Catherwood, M.D., **Chairman**

D. R. Brasie, M.D. — A. C. Roche, M.D.
R. L. Novy, M.D. — G. L. McClellan, M.D.
C. F. DeVries, M.D. — Carl F. Snapp, M.D.
Dean W. Myers, M.D. — Roger V. Walker, M.D.

**Reference Committee reports are to be submitted to the House of Delegates in triplicate**

# WOMAN'S AUXILIARY

**STATE CONVENTION COMMITTEE**

**Mrs. Carl F. Snapp, Chairman**
**Mrs. R. H. Denham, Co-chairman**
**Mrs. Wm. E. Hyland, Banquet and Luncheons**
**Mrs. T. C. Irwin, Flowers**
**Mrs. R. S. Breakey, Inter-county Committee**
**Mrs. L. M. McKinlay, Hospitality**
**Mrs. Wm. D. Lyman, Finance**
**Mrs. V. F. Kling, Printing**
**Mrs. A. V. Wenger, Publicity**
**Mrs. J. D. Miller, Registration**
**Mrs. Fred J. Melges, State Exhibit**
**Mrs. Wm. R. Rodgers, Nutrition Exhibit**

## PROGRAM

**Monday, September 21, 1942**

**9:00 A.M. Registration—Pantlind Hotel**
**12:30 P.M. Luncheon—Past Presidents and Secretaries of State Auxiliary**
**6:30 P.M. Dinner for wives of delegates and other members of MSMS. Individual charge**

**Tuesday, September 22, 1942**

**9:00 A.M. Registration—Pantlind Hotel**
**1:00 P.M. Luncheon—Pre-convention Board Meeting—Pantlind Hotel**
**1941-42 Board Members and County Presidents**
**4:00 P.M. Business Meeting for State Chairman**
Presiding—President-elect, Mrs. G. L. Willoughby
**6:30 P.M. Reception for National President, Past Presidents of Michigan Auxiliary and Board Members—Pantlind Hotel**
Chairman, Mrs. A. V. Wenger
**7:00 P.M. Banquet—Pantlind Hotel**
Presiding—Mrs. William J. Butler
Chairman—Mrs. Carl F. Snapp
Introduction of Past Presidents
Address—Mrs. Frank Haggard, San Antonio, Texas.
National President, Woman's Auxiliary to A.M.A.
Program

**Wednesday, September 23, 1942**

**8:00 A.M. Registration—Pantlind Hotel**
**9:00 A.M. Formal Opening of Convention—Pantlind Hotel**
Presiding—Mrs. William J. Butler, Grand Rapids
Address of Welcome—Mrs. Wm. A. Hyland, Grand Rapids
Response—Mrs. John J. Walch, Escanaba
In Memoriam—Mrs. Milton A. Darling, Detroit
Reading of the Minutes—Mrs. Henry J. Pyle, Grand Rapids
Report of treasurer—Mrs. H. L. French, Lansing
Auditor's report—Mrs. H. L. French
Report—Convention chairman, Mrs. Carl F. Snapp, Grand Rapids
Report of Special Committee and President's Message—Mrs. William J. Butler
Reports of Standing Committees
Reports of County Presidents
Courtesy Resolutions—Mrs. S. L. DeWitt, Grand Hoven
Report of Committee on Nominations—Mrs. Elmer L. Whitney, Detroit
Election and Installation of Officers
Presentation of Pin
Address—Mrs. G. L. Willoughby, Flint
Adjournment
**1:00 P.M. Luncheon—Pantlind Hotel**
Presiding—Mrs. Carl F. Snapp
Program
**4:00 P.M. Post-Convention Board Meeting**
Presiding—Mrs. G. L. Willoughby, 1942-43 Board and County Presidents

**President's Night, Michigan State Medical Society—Pantlind Hotel—For MSMS members, their wives and guests.**

# TECHNICAL EXHIBITS

**Abbott Laboratories** **Booth No. E-9**
**North Chicago, Illinois**

You are heartily invited to visit this comprehensive display of Abbott specialties including a wide range of vitamin products, Metaphen, Sulfonamides, Pentothal Sodium, Arsenicals, Estriol, Estrone, et cetera. Abbott-trained representatives will be glad to exchange notes with you regarding the newer items on display.

So! Stop in and see us!

**A. S. Aloe Company** **Booth No. E-16**
**St. Louis, Missouri**

Aloe will exhibit a cross-section of their complete line of surgical, laboratory and physiotherapy equipment. Featured will be American made stainless steel instruments and newly developed specialties. Michigan representatives, T. T. Boufford and E. E. Davis will be in attendance.

**Audiphone Company** **Booth No. A-13**
**Of Detroit and Grand Rapids**

An exhibit showing the new Western Electric Ortho Tronic Vacuum Tube Hearing Aid; the Western Electric 6B Diagnostic Audiometer; One Western Electric 4C Group Audiometer and the 3A Electrical Stethoscope.

**Baker Laboratories** **Booth No. C-3**
**Cleveland, Ohio**

"Baker's complete line of infant foods will be on display. Baker's Modified Milk, available in both the powder and liquid forms, is a completely prepared milk formula for the bottle-fed baby. Melcose, also a completely prepared milk, is very economical. Melodex (maltose and dextrin) is a carbohydrate, made especially for modifying fresh or evaporated milk formulas."

**Bard-Parker Company, Inc.** **Booth No. E-21**
**Danbury, Connecticut**

The following products will be exhibited at the Bard-Parker booth: Rib-Back Surgical Blades, Long Knife Handles for deep surgery, Renewable Edge Scissors, Formaldehyde, Germicide, and Instrument Containers, Transfer Forceps, Hematological Case for obtaining bedside blood samples, Ortholator for obtaining accurate dental radiographs.

**Barry Allergy Laboratory** **Booth No. B-6**
**Detroit, Michigan**

Allergy skin testing by rapid, time-saving methods will be demonstrated at the Barry Allergy Laboratory's booth, as well as several new products which are associated with allergy.
Having specialized in this field for the last ten years and maintaining a medical reference library on allergy, it will be a pleasure to assist in any allergy problems and furnish definite medical references.

**Becton, Dickinson & Co.** **Booth No. C-9**
**Rutherford, New Jersey**

Becton, Dickinson will have on display standard lines of hypodermic syringes, needles, Ace Bandages, thermometers and diagnostic instruments. The attendants will be fully versed in the latest information as to the availability of supplies of this nature and will welcome your questions.

**Ernst Bischoff Company** **Booth No. D-9**
**Ivoryton, Connecticut**

**Activin,** the first American produced shockless foreign protein for nonspecific therapy.

**Anayodin** is an effective, nontoxic amebicide. It attacks the amebas which have penetrated the tissues.

**Diatussin,** the original drop-dose cough remedy with a thirty-five year record of efficacy.

**Lobelin-Bischoff,** a direct stimulant to the respiratory center. The resuscitant indicated in all forms of respiratory failure or depression.

**Sas-Par,** Antipruritic. Oral treatment for psoriasis.

**The Borden Company** **Booth No. B-20**
**New York, New York**

For news about Borden's scientifically designed infant foods, visit Booth No. B-20. **Biolac**—a complete formula except for vitamin C. **New Improved Dryco**—provides increased potencies of vitamins A and D, quicker solubility, and maximum formula flexibility. **MULL-SOY**—emulsified food for infants allergic to milk, readily digestible, exceptionally palatable. Also **Beta Lactose, Klim, Merrell-Soule Powdered Milks,** and **Borden's Silver Cow Irradiated Evaporated Milk.**

**Burroughs Wellcome & Co. (U.S.A.) Inc.**
**New York, New York** **Booths No. C-11 and C-13**

Burroughs Wellcome & Co. (U.S.A.) Inc., New York, will exhibit at Booths Nos. C-11 and C-13 a representative group of fine chemicals and pharmaceutical preparations, together with important therapeutic agents that will be of interest to the medical profession.

**Cameron Surgical Specialty Company** **Booth No. C-18**
**Chicago, Illinois**

See the new Cameron Flexible Gastroscopes, Binocular Prism Loupes, Color-Flash Clinical Camera, the Mirrolite and latest developments in electrically lighted diagnostic and operating instruments for all parts of the body. Of special interest are the new Spark Gap & Tube Electro-Surgical Units for cutting, coagulating, desiccation, fulguration and orificial ultra-violet therapy in all sizes from the office model Cauteradio to the combination major surgical Hospital United with an abundance of power for the most radical work.

**S. H. Camp & Company** **Booth No. B-14**
**Jackson, Michigan**

S. H. Camp and Company, Jackson, Michigan, will show a series of anatomical drawings by Tom Jones as the central theme of their exhibit. There will be included also a display of the anatomical supports carried by the company's authorized dealers who are equipped to serve patients for the various supports prescribed by physicians for prenatal, postnatal, hernial, sacro-iliac, lumbosacral, visceroptosis and other specific conditions. Experts from the Camp staff will be in attendance to answer questions.

**Ciba Pharmaceutical Products, Inc.**
**Summit, New Jersey** **Booth No. A-5**

Physicians are cordially invited to visit Booth A-5 where the well-known specialities of Ciba Pharmaceutical Products, Inc., will be displayed. A representative of the firm will be in attendance and will be glad to answer any questions concerning the products displayed.

**Cottrell-Clarke, Inc.** **Booth No. D-11**
**Detroit, Michigan**

Cottrell-Clarke, Inc., Michigan's progressive record and physicians' stationery folks, say all the words in the world cannot adequately describe their extended showings of records designed to meet the record needs of every medical man, hospitals (large and small) and various phases of public health work, for they range from simple common record cards and record sheets, case record envelopes to Cottrell-Clarke's new "expanso" record cards and to the Cottrell-Clarke Manufile binder-folders.

**Cream of Wheat Corporation** **Booth E-7**
**Minneapolis, Minnesota**

The Cream of Wheat Corporation will exhibit "Enriched 5-Minute" **Cream of Wheat.** This improved cereal is completely cooked in five minutes and has been enriched with additional Vitamin $B_1$ (Wheat Germ and Thiamin), iron, calcium, and phosphorus.

**R. B. Davis Company** **Booth No. E-3**
**Hoboken, New Jersey**

Don't fail to stop at the Cocomalt booth for a nourishing refreshment. This very palatable malted food dring is fortified with Vitamins A, $B_1$ and D as well as the minerals calcium, phosphorus and iron. There's lots of energizing nourishment in each mouthful.

**Davis & Geck, Inc.** **Booth No. A-8**
**Brooklyn, New York**

*"This One Thing We Do'*
**Sutures**

Davis & Geck, Inc. will display its complete line of sterile sutures including a comprehensive group armed with swaged-on Atraumatic needles and designed for specific surgical procedures.
A further feature of this exhibit will be a motion picture theatre in which a diversified program of surgical films, in full color, will be presented. The following subjects will be shown on Wednesday:

8:30 A. M. **Internal Wiring of Jaw Fractures**—With Note on External Bar Fixation
Drs. James Barrette Brown and Frank McDowell, Washington Univ. School of Med.

8:50-9:30 A. M. **Cancer of the Female Breast**—Diagnosis and Treatment
Dr. Frank E. Adair, Memorial Hospital, New York.

10:30-11:00 A. M. **War Wounds**—Skin Grafting of War Wounds and Observation of Healing
Dr. John M. Converse, American Hospital in Britain.

12:30 P. M. **Hernioplasty**—For Direct Inguinal Hernia
Dr. Lawrence S. Fallis, Detroit.

12:45-1:30 P. M. **Surgery of the Common Bile Duct**
Dr. Chas. B. Puestow, Univ. of Illinois School of Medicine.

2:30 P. M. **Intrathoracic Goiter**
The Lahey Clinic, Boston.

2:45-3:00 P. M. **Splenectomy**—For Banti's Disease
Drs. Roy D. McClure and Lawrence S. Fallis, Detroit.

3:30 P. M. **Obstructive Resection**—With Complementary Cecostomy
Dr. Fred W. Rankin, Lexington, Kentucky.

3:45 P. M. **Modified Mikulicz Operation.** Right colectomy for carcinoma of the cecum
Dr. Richard B. Cattell, Boston.

4:15 P. M. **Surgical Treatment of Varicose Veins**—with High Ligation and Individualized Stripping and Excision
Dr. Henry N. Harkins, Detroit.

4:35 P. M. **Purposeful Splinting**—Following Injuries of the Hand.
Drs. Sumner L. Koch, Michael L. Mason, Harvey S. Allen, Chicago.

4:50 P. M. **Manchester Operation,** (Donald-Fothergill operation) for Uterine Prolapse.
Dr. Louis E. Phaneuf, Boston.

5:15-5:45 P. M. **Abdominal Complete Hysterectomy** for Fibroids
Dr. Arthur H. Curtis, Northwestern Univ. Medical School.

Programs for succeeding days and information regarding the booking of films from the Surgical Film Library for local groups may be obtained from the Davis & Geck representatives in attendance at Booth A-8.

**DePuy Manufacturing Company** **Booth No. D-13**
**Warsaw, Indiana**

DePuy Manufacturing Company will exhibit modern fracture appliances. An interesting feature will be the Lorenzo Lag Screw for hip fractures—the Pease Bow and beaded wire for internal fixation of shaft bones—a large plaster cutter for removing body plasters—splints and bone instruments of various descriptions.
You will be welcome at the DePuy Booth. Mr. C. F. Klingel will be in charge.

**Detroit Creamery Company** **Booth No. D-16**
**Detroit, Michigan**

**Sealtest**
**MILK AND ICE CREAM**

The Detroit Creamery Company and its associated companies in Michigan will sponsor the "Sealtest, Inc." exhibit. The exhibit will emphasize the work of the Sealtest System of Laboratory Protection in maintaining high standards of quality and purity in milk and ice cream products.

**Detroit X-Ray Sales Company**
**Detroit, Michigan** **Booths No. B-13, B-15**

Some new and interesting developments in x-ray apparatus will be displayed at the Detroit X-Ray Sales Company's booth. Among these will be a Navy Mobile Portable unit supplied to the United States Navy, and a complete line of Mattern Shockproof X-Ray units employing the latest types of steel housing, oil immersed x-ray tubes, including the Dynamax with rotating anode.

**Doho Chemical Corporation** **Booth No. C-1**
**New York, New York**

The Auralgan Exhibit consists of a model of the human auricle four feet high together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

**Duke Laboratories, Inc.** **Booth No. B-9**
**Stamford, Connecticut**

Duke Laboratories, Inc., will display the Elastoplast Occlusive Dressings and Mediplast—both products are being used routinely in the treatment of minor injuries—cuts—burns and abrasions—in the large defense Industries, and various governmental units. Elastoplast, used whenever compression and support are required, will also be demonstrated in addition to the Prescribers' Cosmetics—Nivea Creme, Skin Oil and Basis Soap.

**E & J Resuscitator Company** **Booth D-20**
**Detroit, Michigan**

THe E. & J. RESUSCITATOR—Used in all cases of extreme shock, asphyxia, drownings, heart attacks, its application is simple. Instrument adjusts itself to any size lung, especially in the resuscitating of new born, thereby eliminating the human element and saving precious moments in an emergency.

**J. H. Emerson Company** **Booth C-20**
**Cambridge, Massachusetts**

Two new items will be introduced:
1. **Emerson Defense Unit**—An automatic breathing apparatus using oxygen or air. Developed recently for field use for both the Army and Navy, for Defense Industries, and Home Defense protection.
2. **Citrox**—A sterile ointment for healing skin tissue damaged by noninfectious irritations. Used effectively in leading maternity centers and in industries where industrial dermatitis is a problem. Samples will be available.

**H. G. Fischer & Company** **Booth No. E-11**
**Chicago, Illinois**

The best way to look at an x-ray apparatus is with an x-ray. You have to get under the finish. It's down there that the real difference lies. To every visitor at the Michigan State Medical Society convention, accordingly, we give this special invitation: Look under the finish of the new **Fischer** models of appartus shown! **Fischer** shockproof x-ray apparatus, short wave units, ultra violet and other generators are built both for performance and to stand the very hardest day-by-day usage. Demand to be shown the real under-the-finish facts about **Fischer** Models.

**C. B. Fleet Company** **Booth E-22**
**Lynchburg, Virginia**

Phospho-Soda (Fleet) has been an ethical product over half a century. It is a pure, stable, aqueous concentrate of the two U. S. P. phosphates. It is indicated in hepatic and gall-bladder dysfunctions, and when a thorough eliminating action is desired. It possesses rapidity and smoothness of action with marked absence of nausea, griping or tenesmus.

**General Electric X-Ray Corporation** **Booth A-7**
**Detroit, Michigan**

GENERAL ELECTRIC
X-RAY CORPORATION
2012 JACKSON BLVD. CHICAGO, ILL., U. S. A.

Through Peace and War — in good times and bad—vital, dependable x-ray equipment and reliable, nation-wide service, is ever our watchword. Our big job today is to help win the War. But at the same time the General Electric X-Ray Corporation is qualified and prepared to help you today, as well as to assist in your planning for tomorrow.

**Gerber Products Company** **Booth No. B-7**
**Fremont, Michigan**

Gerber Baby Foods have expanded until now there are two precooked and dried cereals, one a wheat cereal and the other an oatmeal which is wheat-free, eighteen strained foods and ten chopped foods. The literature and professional reference cards are revised frequently and we invite you to inspect them.

**Hack Shoe Company** **Booth No. C-7**
**Detroit, Michigan**

Hack Shoe Company provides a prescription shoe service, individualized for the requirements of the particular case. Footwear on display at Grand Rapids will include tribalance shoes, Hack-O-Pedic shoes and Hack postoperative clubfoot shoes. The Hack fitting services fulfill the needs of men, women and children.

**Hanovia Chemical and Manufacturing Company**
**Newark, New Jersey** **Booth No. E-19**

The very latest in ultra-violet equipment will be demonstrated, including the outstanding uses of ultra-violet radiation in the fields of science, medicine and public health. Hanovia's Alpine Sun Lamps, with quartz burners, are accepted by the medical profession as the most effective of all ultra-violet sun lamps. Nearly 9 per cent of all ultra-violet lamps used by doctors and hospitals, the world over, are Hanovia made.

**J. F. Hartz Company** **Booths No. D-12, D-14**
**Detroit, Michigan**

The J. F. Hartz Company and its representative will have the pleasure of showing many of its fast growing lines of high grade pharmaceuticals as well as physiotherapy equipment, office furniture, and instruments.
Doctors and their assistants are cordially invited to visit our booth.

**H. J. Heinz Company** **Booth No. D-4**
**Pittsburgh, Pennsylvania**

The Heinz exhibit featuring Strained and Junior Foods merits your thoughtful attention if you prescribe for infant feeding or adults on soft diets. The popular Nutritional Charts have something new added—a section on the "Application of the Science of Nutrition to Dietetics." While you're at the exhibit, register for the 10th edition.

**Holland-Rantos Company, Inc.** **Booth No. D-2**
**New York, New York**

Modern contraceptive technique will be graphically illustrated with a motion picture and all the various materials including the Koromex and Hyva diaphragms, Koromex jelly and Emulsion cream, together with a complete line of contraceptive specialties will be demonstrated at the booth of the Holland-Rantos Company. Displayed also, will be the new Rantex Masks and Caps, now used by hospitals all over the country.

**The G. A. Ingram Company** **Booths No. D-1, D-3**
**Detroit, Michigan**

The G. A. Ingram Company extends an invitation to all visitors at the Michigan State Medical convention to make Booths D-1 and D-3 their headquarters and, especially, to investigate the new line of diagnostic instruments shown there. The latest in electrical equipment will also be shown.

**"The 'Junket' Folks"**
**Chr. Hansen's Laboratory** **Booth No. B-16**
**Little Falls, New York**

Enlarged photos illustrate graphically the action of the rennet enzyme in forming softer finer milk curds. Display of "Junket" Brand Food Products. Free literature describes dietary uses of rennet-custards in infant, child, convalescent, or post-operative feeding. Well-informed attendant on duty at all times.

**The Kellogg Company** **Booth No. E-6**
**Battle Creek, Michigan**

All Kellogg ready-to-eat cereals either are made from whole grains or are restored to whole grain nutritive value.
Kellogg's Pep, in addition to being restored to whole grain value, has been fortified with vitamins $B_1$ and D. Corn Flakes and Rice Krispies may be included freely in wheat-free and low residue diets. Read the reprints of reports covering recent research with bran.

**Lea & Febiger** **Booth D-10**
**Philadelphia, Pennsylvania**

At space D-10 Lea & Febiger will exhibit among their new works Wintrobe's "Clinical Hematology," Craig's "Diagnosis of Protozoan Diseases," Thorndike's "Manual," Katz' "Electrocardiography and Exercises in Electrocardiographic Interpretation" and Rowe's "Elimination Diets." New editions will be shown of Gray's "Anatomy," Master on the "Electrocardiogram," Kovacs' "Electrotherapy," Knowles on "Diseases of the Skin," Werner's "Endocrinology," Gifford's "Ocular Therapeutics" and other standard works.

**Lederle Laboratories, Inc.** **Booth No. E-2**
**Chicago, Illinois**

We are pleased to invite the attention of the physicians attending to our complete line of outstanding Vitamin B Complex preparations. These are available in the parenteral form, and for oral medication the liquid capsules and the highly potent tablet.

**Libby, McNeill & Libby** **Booth No. B-3**
**Chicago, Illinois**

"Libby's Baby Foods are of special interest to pediatricians because they are not only strained, like other baby foods, but first strained and then **specially homogenized.** This exclusive Libby process breaks up coarse cells and fibers, making foods **extra easy to digest.** The American Medical Association's Council on Foods and Nutrition accepts the statement that Libby's Baby Foods are extra easy to digest."

**Liebel-Flarsheim Company** **Booth B-17**
**Cincinnati, Ohio**

The well-known L-F Short and Ultra-Short Wave Generators . . . as well as the famous Bovie Electrosurgical Units will be on display. Other new and interesting physical therapy apparatus and accessories will also be shown and it will be a pleasure to demonstrate this modern equipment to you.

**Eli Lilly and Company** **Booth No. E-1**
**Indianapolis, Indiana**

The Lilly exhibit is evidence of the interest of Eli Lilly and Company in the Michigan State Medical Society. Lilly products both old and new will be on display and Lilly representatives will be present to serve physicians in every possible way.

**J. B. Lippincott Company** **Booth No. A-9**
**Philadelphia, Pennsylvania**

Among the interesting new works on display at the Lippincott exhibit are Ferguson's "Surgery of the

Ambulatory Patient" and Geschickter's "Diseases of the Breast." The new Cooke's "Essentials of Gynecology" and Kampmeier's "Syphilology" will also be featured as well as Strecker's "Essentials of Psychiatry."

**M. & R. Dietetic Laboratories** **Booth No. C-2**
**Columbus, Ohio**

M & R Dietetic Laboratories, will display Similac, a food for infants deprived partially or entirely of breast milk; also powdered SofKurd. Mr. F. H. Behncke and Mr. L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application of these products.

**McKesson Appliance Co.** **Booth No. C-5**
**Toledo, Ohio**

The McKesson Appliance Company invites you to come to its booth with your service problems. During the present emergency we advise careful upkeep of all your equipment, and if we can be of any help to you, do not hesitate to call upon us. We will display our equipment as usual.

**Mead Johnson & Company** **Booths No. A-1 & A-2**
**Evansville, Indiana**

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booths A-1 and A-2 will be time well spent."

**Medical Arts Surgical Supply Co.**
**Grand Rapids, Michigan** **Booths No. B-8, B-10, B-12**

In the Medical Arts Surgical Supply Company we will display Physicians and Surgeons Equipment, including Liebel-Flarsheim Short Waves, Hamilton Furniture, Castle and Pelton Lights and Sterilizers. Medical Arts Laboratories displaying pharmaceuticals manufactured in our own laboratory in Grand Rapids. Mr. R. Johnson in charge.

**Medical Case History Bureau** **Booth No. A-10**
**New York, New York**

Representatives will demonstrate patient's history record charts, for both general practice and all specialties; also simple and efficient bookkeeping cards. Of special interest is the unique method by which interesting cases may be cross-indexed according to the disease directly on the patient's history chart.

**Medical Protective Company** **Booth No. C-16**
**Fort Wayne, Indiana**

The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there. They are thoroughly trained in Professional Liability underwriting.

**Mellin's Food Company** **Booth No. E-13**
**Boston, Massachusetts**

Physicians are cordially invited to call and make inquiries regarding details of composition and application of Mellin's Food. During the seventy-five years of its existence Mellin's Food has so well established itself as to be worthy of consideration in any attempt to arrange nourishment for infants, children and adults.

**The Mennen Company** **Booth No. B-11**
**Newark, New Jersey**

The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their saving and after-shave products.

Our medical representative, Mr. David Storms, will attend this convention.

**Merck & Company** **Booth No. A-6**
**Rahway, New Jersey**

War medicine and public health requirements have focused particular attention on the antibacterial properties of the sulfonamides, the nutritional value of the vitamins, and the antisyphilitic value of the Arsphenamines and Tryparsamide.

Literature on all of these important products is available at the Merck booth, where Mr. S. A. Gaffney will be in charge.

**Wm. S. Merrell Company** **Booth C-10**
**Cincinnati, Ohio**

The Merrell exhibit will feature clinical data demonstrating the effectiveness of oral vaccination with Oravax in reducing number, severity, and duration of colds, as reported in current medical literature. Oravax offers the physicians an opportunity to contribute man-hours of production to the war effort by protecting colds-susceptible individuals against this greatest cause of disability.

**Michigan Medical Service** **Booth No. E-20**
**Michigan Hospital Service**
**Detroit, Michigan**

Full information will be available about Michigan Medical Service in this featured exhibit of the results of the operation of the doctors' prepaid group medical service program.

There will also be an interesting display of the companion hospital service plan of Michigan Hospital Service.

**C. V. Mosby Company** **Booth No. B-5**
**St. Louis, Missouri**

The C. V. Mosby Company extends a cordial invitation to all doctors attending the Michigan State Medical Society convention to visit Booth No. B-5 where they may inspect the many titles which will be displayed. Outstanding new volumes on surgery, orthopedics, heart diseases, ophthalmology, obstetrics and gynecology, x-ray, materia medica and pediatrics will be shown.

**The National Livestock and Meat Board**
**Chicago, Illinois** **Booth No. D-19**

The National Live Stock and Meat Board will display a large Nutrition Yardstick, similar to the small one which has just been completed. On this they will show how a diet, based on the pattern set up by the National Nutrition Program, meets all the nutritional requirements. The small Yardstick will be shown, together with charts and literature prepared in the interest of the National Nutrition Program.

**Parke, Davis & Company**
**Detroit, Michigan** **Booths No. C-15, C-17, C-19**

Featured in the Parke-Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride Preparations.

**The Pelton & Crane Company** **Booth No. D-7**
**Detroit, Michigan**

The Pelton & Crane Company will feature office size Autoclave Sterilizers, complete Cabinet Models, and specialized Operating Lights. Be sure to see the Pelton Localite, designed especially for ear, nose, and throat work.

**Pet Milk Company** **Booths No. E-15, E-17**
**St. Louis, Missouri**

An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

**Petrogalar Laboratories** **Booth No. B-2**
**Chicago, Illinois**

Physicians are cordially invited to visit the Petrogalar exhibit where a new and enlightening story on Petrogalar, an aqueous suspension of mineral

oil, will be related. Beautifully colored anatomical drawings and new literature may be had upon request from our professional representatives who will be in constant attendance.

**Philip Morris & Co. Ltd.** **Booth No. A-14**
**New York, New York**
Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

**Picker X-Ray Corporation** **Booth No. A-11**
**New York, New York**
Visitors to the Picker X-Ray Corporation's booth will have an opportunity of seeing the United States Army X-ray Field Unit. The unit will be shown set up as packed in standard Army chests as well as a portable. This equipment is designed for radiography, fluoroscopy, superficial therapy and foreign-body localization. The localizer attachment, designed for the purpose of speedy localization of foreign objects in the body under wartime conditions, is of universal interest. There will also be on display a gasoline-electrical generator to supply this Army unit with power independent of community lines.

**Procter & Gamble** **Booth No. E-14**
**Cincinnati, Ohio**
"What makes soap mild?"
What are the new, accepted techniques for testing soap? What should you look for in a soap for your patients? Visit Booth No. E-14, where a member of Procter & Gamble's scientific staff will be glad to answer these questions.

**Professional Management** **Booth No. E-4**
**Battle Creek, Michigan**
During our **ten years** of service to Michigan doctors we have designed hundreds of **personalized record systems,** as well as maintaining psychologically correct **collection management** right in the clients' own offices.
You are cordially invited to make this booth your headquarters during the sessions, ask questions if you like, and help yourself to reprints on **The Business Side of Medicine.**

**Frank N. Ruslander** **Booth No. E-18**
**Detroit, Michigan**
This exhibit will feature Medical Photography as an aid to the practice of medicine.
It will demonstrate the use of photographs in illustrating textbooks, case histories, etc., and the teaching of students.
A display of color photographs will also be shown.

**S. M. A. Corporation** **Booth D-22**
**Chicago, Illinois**
Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S.M.A. Corporation. Physicians who visit this exhibit at Booth No. D-22 may obtain complete information, as well as samples, of S-M-A Powder and the special milk preparations—Protein S-M-A (Acidulated), Alerdex and Hypo-Allergic Milk.

**W. B. Saunders Company** **Booth No. B-1**
**Philadelphia, Pennsylvania**
This publishing house will have an unusually attractive exhibit in which will be displayed many new books and new editions of particular importance now. They will include the six Official Military Surgical Manuals, the new (1942) Mayo Clinic Volume, Lundy's "Anesthesia," Walters, Gray & Priestley's "Carcinoma of the Stomach," Duncan's "Metabolic Diseases," Johnstone's "Occupational Diseases," Surgical Practice of the Lahey Clinic, Kolmer & Tuft's "Clinical Immunology, Biotherapy and Chemotherapy," Cutler's "Diseases of the Hand," Weiss & English's "Psychosomatic Medicine," Stieglitz's "Geriatrics," and new editions of Beckman's "Treatment," Christopher's "General Surgery," Sollmann's "Pharmacology," Boyd's "Surgical Pathology," and Curtis' "Gynecology."

**Schering Corporation** **Booth No. B-19**
**Bloomfield, New Jersey**
All the highly advanced Schering hormones are on display at the Schering exhibit, which is practically a survey of recent endocrine progress. In addition, there are other interesting products such as **Sulamyd** (Sulfacetimide) for the treatment of urinary tract infections, and **Sulfadiazine-Schering,** most effective sulfonamide for pneumonia. Representatives will be present to discuss your problems and distribute interesting and valuable literature and souvenirs.

**Scientific Sugars Company** **Booth No. D-6**
**Columbus, Indiana**
Scientific Sugars Company will display Cartose, Hidex, and the Kinney line of nutritional products. A new preparation of interest to physicians will be featured.

**Sharp & Dohme** **Booth No. D-21**
**Philadelphia, Pennsylvania**
Sharp & Dohme will have their modern display at Booth No. D-21, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display pharmaceutical specialties including the new Liquid "Digitol" and Tablets "Digitol" which are clinically standardized on humans, "Delvinal" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Depropanex," and "Prohexinol." A cordial welcome awaits all visitors.

**Smith, Kline & French Laboratories**
**Philadelphia, Pennsylvania** **Booth No. B-4**
Smith, Kline & French Laboratories are displaying Benzedrine Sulfate Tablets, Benzedrine Inhaler and Pentnucleotide. A representative of the S.K.F. Professional Service Department will be glad to discuss the uses of these Council-accepted preparations with physicians visiting the exhibit.

**E. R. Squibb & Sons** **Booth No. C-22**
**New York, New York**
The Squibb Exhibit will feature a number of new Chemotherapeutic Specialties, as well as the latest additions to their line of Vitamin, Glandular and Biological Products. Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

**Frederick Stearns & Company**
**Detroit, Michigan** **Booths No. C-4, C-6**
Doctors are cordially invited to visit our attractive convention booths, to view and discuss outstanding contributions to medical science developed in the Scientific Laboratories of Frederick Stearns & Company.
Our professional representatives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrin Hydrochloride for intranasal use, Amino Acids for perenteral protein feeding, Mucilose for bulk and lubrication, Ferrous Gluconate, Potassium Gluconate, Gastric Mucin, Susto, Trimax, Appella Apple Powder, Nebulator with Nebulin A, and our complete line of Vitamin products.

**Wall Chemicals Corporation** **Booth D-5**
**Chicago, Illinois**
Wall Chemicals Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidified, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

**White Laboratories, Inc.** **Booth No. D-18**
**Newark, New Jersey**
White's prescription vitamins will be presented for your consideration. Here you may obtain the most recent findings concerning indications for vitamin therapy, properties of the various vitamins, and clinical data regarding White's Cod Liver Oil Concentrate and other Council-Accepted vitamin products.

**Winthrop Chemical Company, Inc.** **Booth No. C-8**
**New York, New York**
Winthrop Chemical Company, Inc., extends a cordial invitation to every member of the Michigan State Medical Society to visit its booth where representatives will gladly discuss the latest preparations made available by this firm. You will receive valuable booklets dealing with anesthetics, analygesics, antirachitics, antispasmodics, antisyphilitics, diagnostics, diuretics, hypnotics, sedatives, and vasodilators.

**John Wyeth & Brother** **Booths No. A-3, A-4**
**Philadelphia, Pennsylvania**
You are cordially invited to visit the John Wyeth & Brother Exhibit where its new Hemo-Guide, a modern aid to the diagnosis of anemia, will be on display.
Representatives will be pleased to answer questions or explain features of any of the Wyeth pharmaceutical specialties.

**Zimmer Manufacturing Company** **Booth No. E-5**
**Warsaw, Indiana**
Zimmer Manufacturing Company will exhibit its complete line of fracture equipment with C. A. Fisher in charge of the display. Notable improvements in bone fixation devices and instruments will be shown at this meeting.

# ■ COMMITTEE REPORTS ■

## SUMMARY OF PROCEEDINGS OF HOUSE OF DELEGATES, 1941

The seventy-sixth annual meeting of the House of Delegates of the Michigan State Medical Society was held at Grand Rapids, September 16, 1941.

The House of Delegates:

1. Accepted and adopted with thanks the reports of the President (909*); President-Elect (909); The Council (910); Delegates to the AMA (909); Legislative Committee (911), Committee on Distribution of Medical Care (911), Medical Legal Committee (911), Joint Committee on Health Education (911), Preventive Medicine Committee (911), Cancer Committee (911), Maternal Health Committee (911), Syphilis Control Committee (911), Tuberculosis Control Committee (911), Industrial Health Committee (911), Mental Hygiene Committee (911), Child Welfare Committee (911), Iodized Salt Committee (911), Heart and Degenerative Diseases Committee (911), Postgraduate Medical Education Committee (911), Ethics Committee (911), Public Relations Committee (911), Committee on Nurses Training Schools (911), Prelicensure Medical Education Committee (912), Radio Committee (912), Advisory Committee to Woman's Auxiliary (912), Committee on Scientific Work (912), Medical Preparedness Committee (912).

2. Referred to the 1942 Session of the House of Delegates the following proposed amendments to the Constitution and By-laws of the MSMS:

(a) Constitution: Article III, Section 4, re Honorary Members (903).
(b) Constitutution: Article IV, Section 4, re Officers and House of Delegates (903).
(c) Constitution: Article IV, Section 5, re Election by House of Delegates (903).
(d) Constitution: Article X, Section 1, re clarification of "session" and "meeting" (903).
(e) Constitution: Article III, Sections 3 and 5, re Associate and Junior Members (904).
(f) Constitution: Article V, Section 1, re Officers and The Council (904).
(g) By-laws; Chapter I, (a new) Section, re special membership applications (915).

3. Elected the following to Emeritus Membership (914): Drs. Charles D. Aaron, Angus L. Cowan, Gilbert S. Field, and George E. Frothingham, all of Detroit; Fred J. Graham, Alma; Abraham Leenhouts, Holland; Wm. C. Martin. Irwin H. Neff, Walter R. Parker, and G. L. Renaud, all of Detroit; M. D. Ryan, Saginaw; Joseph E. G. Waddington, Detroit.

To Retired Membership (914): Drs. Charles W. Ash, Bay City; H. S. Bartholomew, Lansing; H. J. Hammond, Detroit; E. C. McConnell, Lansing; J. H. O'Dell, Three Rivers; C. H. O'Neil, Flint; C. V. Russell, Lansing; C. M. Swantek, Bay City.

4. Adopted amendments to Constitution and By-laws:

(a) Constitution: Article XII, Section 1, distinction between "present" and "seated" (913).
(b) Constitution: New Article XII, distinction between "session" and "meeting." Renumbering old Article XII to Article XIII (913).
(c) By-laws: Chapter 10, Section 1, distinction between "session" and "meeting" (913).
(d) By-laws: Chapter 1, New Section 7, Transfer of membership to another state society (915).
(e) By-laws: Chapter 3, Section 1, distinction between "session" and "meeting" (915).
(f) By-laws: Chapter 3, Section 7-d, Election of Delegates and Alternate Delegates to AMA (913).
(g) By-laws: Chapter 3, Section 7-1, distinction between "session" and "meeting" (915).
(h) By-laws: Chapter 3, Section 2, Qualifications of House of Delegates members (913).
(i) By-laws: Chapter 5, Section 1, Annual Meeting of The Council (913).
(j) By-laws, Chapter 5, Section 1, Executive Committee of The Council (913).
(k) By-laws, Chapter 4, Section 4, Duties of Secretary (915).
(l) By-laws, Chapter 10, Section 1, "session" to "meeting"; "present" to "seated" (915).

5. Rejected proposed amendments to Constitution:

(a) Constitution: Article IV, Section 3, to make past-presidents ex officio members of House of Delegates (912).
(b) Constitution: Article IV, Section 4 re finances (912).

6. Approved Resolutions concerning:

(a) Study by Michigan Medical Service of a limited liability certificate (Insley Resolution) (910).
(b) Personnel of Michigan Medical Service (Ekelund Resolution) (911).
(c) Creation of a Section on General Practice (914).
(d) Professional Liaison Committee (914).
(e) Election of Delegates to A.M.A. (914).
(f) National Physicians' Committee (914).
(g) Appreciation to Michigan Legislature and to Governor (914).

7. Disposed of other Resolutions as follows:

(a) Dissolution of Michigan Medical Service (Callery Resolution and Brasie Resolution No. 1) were not adopted (910).
(b) Income limits of Michigan Medical Service (Brasie Resolution No. 2) was referred to Members of Michigan Medical Service (910).
(c) Limiting presentation of Michigan Medical Service in certain counties (Brasie Resolution No. 3) was tabled (910).
(d) Supervision of Michigan Medical Service in individual counties (Brasie Resolution No. 4) was tabled (910).
(e) Premarital Instructions (DeVries Resolution) was referred to MSMS Preventive Medicine Committee (911).

8. Elected:

(a) C. E. Umphrey, M.D., Detroit, Councilor of 1st District (915).
(b) R. J. Hubbell, M.D., Kalamazoo, Councilor of 4th District (915).
(c) V. M. Moore, M.D., Grand Rapids, Councilor of 5th District (916).
(d) R. S. Morrish, M.D., Flint, Councilor of 6th District (916).
(e) L. J. Johnson, M.D., Ann Arbor, Councilor of 14th District (917).
(f) L. G. Christian, M.D., Lansing, Delegate to AMA (916).
(g) F. E. Reeder, M.D., Flint, Delegate to AMA (916).
(h) R. H. Pino, M.D., Detroit, Alternate Delegate to AMA (917).
(i) I. W. Greene, M.D., Owosso, Alternate Delegate to AMA (917).
(j) H. H. Cummings, M.D., Ann Arbor, President-Elect (917).

*Numbers refer to pages in the November, 1941, issue of The Journal, M.S.M.S.

(k) P. L. Ledwidge, M.D., Detroit, Speaker, House of Delegates (917).

(l) G. Howard Southwick, M.D., Grand Rapids, Vice-Speaker, House of Delegates (918).

9. Authorized emblem of appreciation for O. D. Stryker, M.D., Fremont, retiring Speaker (918).

10. Referred to The Council the selection of the place and dates of 1942 Annual Session (918).

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## PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS OF MICHIGAN STATE MEDICAL SOCIETY

The following amendments were presented at the 1941 Convention and according to the Constitution were referred to the 1942 Session of the House of Delegates for final consideration:

### Constitution

1. Amend **Article III, Section 4,** by adding the following sentence: "Honorary members shall pay no dues to the State Society and shall be without right to vote or hold office in either County or State Society."

*Comment:* The present Constitution provides for Honorary Members, but does not state whether or not they shall pay dues, vote, or hold office. Therefore, this amendment would clarify the status of Honorary Members.

2. Amend **Article IV, Section 3,** by adding the following sentence: "The past presidents shall be members at large of the House of Delegates during the first five (5) years of their past presidency with right to vote and hold office."

*Comment:* This amendment would make all past presidents of the Michigan State Medical Society automatically members at large of the House of Delegates for the first five years following their term as president.

3. Amend **Article IV, Section 5,** by re-arranging the Section, to read as follows: "The House of Delegates shall at the regular annual session, elect the President-elect, a Speaker and Vice Speaker of the House of Delegates, Members of The Council, and such other officers as may be created by the House of Delegates, unless otherwise specified in the Constitution and By-laws. It also shall elect delegates and alternate delegates to the American Medical Association."

*Comment:* This amendment would add delegates and alternates to the American Medical Association to the list of officers to be elected by the House of Delegates at its annual session.

4. Amend **Article X, Section 1,** third sentence, by having the word "Session" changed to "Meeting" and read as follows: "A majority of all the members present at that *meeting* shall determine the question and be binding."

*Comment:* Clarification of the term "session" and "meeting."

5. Delete **Article III, Section 3** (referring to Junior Membership), and re-number subsequent sections in Article III from 4 to 8, to 3 to 7, respectively.

*Comment:* This amendment would eliminate a duplication in the Constitution. At the present time Associate Membership in the State Medical Society is provided for interns in addition to Junior Membership and it is felt that membership privileges for interns is adequately covered by Associate Membership.

6. Amend **Article V, Section 1,** by deleting the fifth and sixth sentences of the Section, which read: "The President, the President-elect, the Secretary, and the Treasurer shall be ex officio members and without right to vote. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with power to vote."

*Comment:* This amendment would give the president, president-elect, secretary and treasurer, now members of The Council, the right to vote.

### By-Laws

7. Amend the By-laws by adding a new Section to **Chapter 1,** in accordance with the following resolution presented at the 1941 House of Delegates:

"WHEREAS, before active members of the Michigan State Medical Society may be transferred to the Roster of either Honorary Members, or Retired Members, or Members Emeritus, proper investigation of their qualifications must be made for such transfer as provided in Article III, of the Constitution, Sections 4, 6, and 7, then

"BE IT RESOLVED, that the County Societies send resolutions for such transfers to the Secretary of the State Society at least thirty days before the annual meeting of the Society.

"BE IT FURTHER RESOLVED, that the Secretary of the State Society present a resolution essentially combining these resolutions in a compact form to the House of Delegates at the regular annual meeting of the Society."

No specific amendment was offered, the above resolution being referred to the 1942 Session of the House of Delegates for consideration.

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## ANNUAL REPORT OF THE M.S.M.S. DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION, 1942

The Ninety-Third annual session of the American Medical Association was held at Atlantic City, N. J., on June 8-12, 1942.

The registration, of whom 216 were from Michigan, was 8,238. This was about fifteen hundred less than the session at Atlantic City in 1937, and a very satisfactory registration considering the gasoline rationing, transportation difficulties and the absence of many medical men with the armed forces and other defense agencies.

The sessions, both scientific and administrative, were geared to the tempo of the national emergency. Matters that receive serious consideration during normal times were shelved as far as possible for the duration. This condition was anticipated by the Executive Committee of our State Society and the delegates were instructed to use their best judgment about again presenting certain resolutions from the Michigan State Medical Society to the House of Delegates. Your delegates felt it very unwise to present several controversial resolutions and subsequent events justified the wisdom of their decision.

Atlantic City is very well adapted for large conventions such as the AMA. The Convention Hall is large enough to house under one roof all the various commercial exhibits as well as the valuable scientific booths and meeting places for the general assembly and sixteen section meetings.

The Michigan delegates were especially well pleased with the new session on General Practice which was sponsored last year by them and so ably supported by Dr. Arch Walls of Detroit and many men throughout the United States. The program of this session was excellent and the average attendance about five hundred. The sessions will be continued next year from all indications and if the interest continues at this high pitch, it will soon be a regularly constituted session. During the sessions of other Sections, eight Pan American doctors appeared on the program testifying to the breadth of the AMA strength and importance.

The committee on Scientific Exhibit is commended for its splendid achievement.

The showing of silent and sound motion pictures in small theaters adjoining the exhibit hall is again proving a most valuable adjunct to the exhibit proper. The

excellence of these pictures from the point of view of photographic and educational value is worthy of special commendation.

Nowhere else in the world is such a wealth of scientific exhibits presenting new developments in medicine and instructing the profession regarding new lights on disease and treatments available. In itself alone it is a postgraduate medical education that has no rival.

The first official act of the House of Delegates after its organization on the first morning of the meeting is the selection of some member of our profession to receive the Distinguished Service Award. In accordance with the regulation by the By-Laws, three names were presented to the House: Dr. George W. Crile of Cleveland, Dr. Ludvig Hektoen of Chicago and Dr. Elliott P. Joslin of Boston. There are so many distinguished physicians in this country that it is impossible to adequately honor all the deserving ones. That one fails of election after nomination is no reflection on his merits. The matter of age, location in the country and personal acquaintanceship frequently is the deciding factor. In the final vote, Dr. Ludvig Hektoen received the most votes and was awarded the distinction. However, the votes might have gone to either of the other nominees without detracting from the significance of the award.

The context of the addresses of the Speaker, the President and President-Elect dealt principally with military preparedness and the contributions being volunteered by medical organizations. A thorough understanding is held by the society of the civilian as well as military needs, and we can proclaim to our enemies both within and abroad that American medicine and American doctors will fight on and on—no matter how long the struggle may be—that our way of life and our way of delivering medical service may survive.

In addition, steps were taken to preserve the elements of independence and freedom of action that have contributed to the high standards of Medicine in this country by planning to make possible the easy re-entry of physicians to civilian practice at the end of the conflict.

At every meeting many resolutions are introduced into the House. Some germane to the needs and relating broad principles of the purpose of the AMA, and some quite far afield.

A resolution introduced proposing a change in the constitution by having eleven trustees instead of nine was defeated.

An action of the House that is of interest to states having prepayment medical and surgical service plans was the approval of the principle of service basis of payment if sponsored by constituent state medical associations or component medical societies in accordance with recommendations relative to medical service plans previously adopted by the House of Delegates.

While on the subject it is apropos that the following be quoted from the report in one reference committee:

"It might be well at this point to review briefly the principles already adopted by the House of Delegates in 1938: 1. Hospital service insurance was approved in principle. It was felt that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care. 2. It was recognized that health needs are not identical in different localities but depend on local conditions and, therefore, are local problems. 3. Cash indemnity insurance plans were considered practicable of development in order to cover in whole or in part the costs of emergency or prolonged illness. Such plans were also to have approval of the county and state medical societies of their respective areas. 4. A stand was reiterated against any system of compulsory health insurance. 5. A conviction was expressed that voluntary indemnity insurance may assist many income groups to finance their sickness costs without subsidy. It was further stated that development of group hospitalization and establishment of insurance plans on the idemnity principle to cover the cost of illness would assist in the solution of these problems. As a result of the adoption of these principles, various organizations came into being. Not only is the cash indemnity principle being used, but medical service plans, some on the so-called unit plan, have also developed. Taken as a whole, progress has been slow and disappointing. It seems to your reference committee that there are two outstanding reasons for this. First, the public has not shown any great desire for such plans. Its attitude is often that it has always obtained medical care when and where it wanted it, and paid for it when and if it pleased—so why budget ahead for something it believes it can get anyway? The other reason is partly tied up with the first. The original idea of all such plans was to find some means of delivering good medical care to those in the economic group above indigence and below complete self sufficiency. This aim has to a large extent been lost sight of, and there has been a tendency to make the fee factor more important than the delivering of good medical care. One thing is certain, and that is that the development of sound, workable, voluntary plans will do more than anything else to avert the introduction of some compulsory plan."

A Resolution on Approval of Activities of National Physicians' Committee for Extension of Medical Service was referred to the Reference Committee on Legislation and Public Relations. Three members of the Committee brought in an emasculated substitute resolution which meant nothing. A minority report was presented by a Michigan member of the Resolution Committee demanding the acceptance of the original resolution without deletion or pussy-footing. The debate was stimulating, informative and courageous. The minority report was successfully passed. This resolution will lend encouragement and support to the Program of the NPC for Extension of Medical Service. It is the considered judgment of those who have reasons to be thought of as having a vision of the future that the NPC is now more needed than ever before and deserves the wholehearted support of all component and constituent medical societies.

The following officers were elected for the offices in which vacancies occurred at the end of this session:

Dr. James E. Paullin of Atlanta, Ga.—President-Elect.

Dr. Wm. J. Carrington, Atlantic City, N. J.—Vice President.

Dr. Olin West—reëlected Secretary.

Dr. Herman L. Kretschmer, Chicago—reëlected Treasurer.

Dr. H. H. Shoulders, Nashville, Tennessee—reëlected Speaker of the House.

Dr. R. W. Fouts, Omaha, Nebraska—reëlected Vice Speaker.

Trustees:

Dr. Edward M. Pallette, Sr., Los Angeles, was elected to fill the term automatically vacated by Dr. Arthur Booth of Elmira, N. Y.

Dr. R. L. Sensenich was reëlected to succeed himself for a second term.

The following Michigan men were elected to Affiliate Fellowship: Drs. Aaron, Chas. A.; Biddle, Andrew P.; Campbell, D. M.; Frothingham, George E.; Godfrey, W. L.; Hume, A. M.; Kellogg, J. H.; Leenhouts, A.; McQueen, D. K.; Martin, Wm. C.; Miner, Stanley G.; Parker, Walter, R.; Renaud, George L.; Roberts, A. J.; Sawbridge, Edw.; Stevens, Rollin H.; Thompson, Archibald; Waddington, J. E. G.; and Wessinger, John A.

The annual session for 1945 was voted to the City of New York.

The 1943 session is scheduled for San Francisco but rumors were rife that if the war continues,

no general session would be held, but a session of the House of Delegates would probably be held in Chicago to transact necessary business.

Taking it all in all, this was one of the most successful meetings of the American Medical Association and reflects great credit upon its members and officers.

HENRY A. LUCE, M.D., *Chairman*
L. G. CHRISTIAN, M.D.
T. K. GRUBER, M.D.
CLAUDE KEYPORT, M.D.
FRANK E. REEDER, M.D.

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## ANNUAL REPORT OF THE COUNCIL, 1941-42

The Council met four times and the Executive Committee convened nine times (up to September 21, 1942), a total of thirteen meetings since the 1941 House of Delegates adjourned. As in past years, all the business of the Michigan State Medical Society, including matters studied and recommendations made by the twenty-five committees of the Society were referred routinely to The Council or its Executive Committee, for consideration, approval, and action.

### Membership

Members in good standing as of July 31 and as of December 31, for the years 1935 to 1942, inclusive, are indicated in the following chart:

| | 1942 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 | 1935 |
|---|---|---|---|---|---|---|---|---|
| 7/31 | 4,553 | 4,403 | 4,401 | 4,255 | 3,958 | 3,757 | 3,457 | 3,410 |
| 12/31 | | 4,621 | 4,527 | 4,425 | 4,205 | 3,963 | 3,725 | 3,653 |

The progress of the State Society and the scientific and sociological benefits of membership are best indicated by the increase in members made during the past seven years.

The figures for 1942 include 59 Emeritus and Honorary Members, and 209 Military Members.

A decrease in paid membership can be expected by the end of this year, resulting from the increasing number of Doctors of Medicine who are entering the armed forces of the United States. Members in military services are accorded full membership privileges in the State Society but are relieved from payment of dues.

### Finances

The last fiscal year of our Society terminated December 24, 1941. The usual Ernst & Ernst audit was published in the February issue of THE JOURNAL, to which attention is invited.

The 1942 budget was formulated by The Council at the Annual Meeting in January. The anticipated loss of revenue from members in military service was reflected in the budget which estimated that only 4,100 members would pay dues. Subsequent experience has shown that this figure is nearly correct. The Council decided to continue society activities on the former scale, even though a sharp decrease in revenue might result. The next year's estimates of dues will probably be revised downwards because a further decrease in revenue seems inevitable. This may necessitate a slight raise in dues or the application of the assessment which heretofore has been made available each year by the House of Delegates.

The invested funds of the Society have been carefully studied at The Council meetings and are considered to be in high grade bonds, a large portion of which are those of the U. S. Government.

The budget has been followed rather closely and the Society expenses are adjusted, so far as practicable, to meet the budget requirements. On the whole, our expenses are within the budget estimate, but fewer savings have resulted because of the loss of revenue from dues.

### The Journal

The Publication Committee reaffirms its stand of last year that free copies of THE JOURNAL should be sent to hospitals in the state having interns or house physicians; this as an educational gesture, to promote interest in organized medicine. There are unquestionably fewer of those hospitals this year and due to the war also fewer of these men entering private practice.

Several items need consideration this year:

1. There has been an increase in printing costs as of January 1, 1942, of 60c per page, that is approximately $52.00 per issue. This is over $600 per year and is a real item.

2. We have instituted an increase in Medical Advertising rates this year:

| Insertions | 1 Page | ½ Page | ¼ Page | ⅛ Page |
|---|---|---|---|---|
| 12 | $32 | $18 | $12 | $ 8 |
| 6 | 35 | 19 | 13 | 9 |
| 3 | 39 | 22 | 16 | 12 |
| 1 | 42 | 24 | 19 | 14 |

This rate has been accepted and will result in considerable increase in revenue when present contracts expire.

3. We have inaugurated nonmedical space rates for products and services beyond the ordinary space of medical practice at roughly 20 per cent increase over medical space rate. This has added about three pages to our advertising.

4. The use of front pages, usually assigned to advertising, for reading matter of special interest, has, we believe, added to the value of these advertising pages by calling them more strikingly to the reader's attention.

5. We have tried to increase reader interest by the uniform value of original articles, by news and organization notices, by carefully prepared reading notices, book reviews and county society activity reports. We have tried to bring to our members the things of interest to medical men. We have used more cuts to help clarify articles and to create greater reader interest.

The editorial policy has been supervised by The Council, having in mind the interests of our members, and their enlightenment in current affairs so far as practicable. The activities of the various committees of the Society have been noted and every important decision and action has been fully explained.

### County Societies

Our county societies have been constantly informed as to late developments in Procurement and Assignment and other governmental divisions relative to military enlistment of medical personnel. Consequently, interest in county society meetings has not abated, despite wartime uncertainty and the greater professional demands made upon the individual physicians due to the military service of some of his former colleagues.

Your committee would suggest that plans be made at this time for the return to civilian practice of those of our membership who are or will be in military service. A continuous survey of county society membership, with special emphasis upon absence for military duty, should be made, with occasional reports upon the local needs for additional medical services. Thus, when the period of emergency is over, military members could return to their former practice or be given the opportunity to relocate in a community where their services might be in more demand.

Consideration also should be given at this time by the Postgraduate Medical Education Committee toward the establishment of comprehensive refresher courses for returning military members.

### Organization

L. J. Johnson, M.D., was elected by the 1941 House of Delegates as Councilor of the 14th District succeeding Howard H. Cummings, M.D., of Ann Arbor who was chosen President-elect of the State Society.

From October, 1941, through January, 1942, 10 Dis-

trict Meetings were held throughout the State covering councilor districts in the lower peninsula. The Upper Peninsula physicians were contacted in July at the time of the Upper Peninsula Medical Society Meeting in Marquette. Excellent organization in the 83 counties continues, thanks to the efforts of the county society officers and their splendid coöperation with the State Councilors and officers.

The Secretaries' Conferences of September 17, 1941, on the occasion of the Annual Meeting in Grand Rapids, and on January 25, 1942, in Lansing, were better attended than ever, the latter breaking the record not only in the number present but in the enthusiasm of this first "war meeting."

Seven Secretary's Letters were mailed during the year, three to all members of the Society and four to presidents and secretaries of the county societies.

The Council held a meeting with Michigan delegates to the AMA House of Delegates on May 14 and discussed four matters for possible presentation to the AMA at Atlantic City.

### Committees

Sixty-one committee reports were presented *in toto* to The Council during the past year with some of these reports including more than one meeting of the committee. The great volume of work done by the State Society during 1941-42 is best indicated by the annual reports of the MSMS committees, contained in the Delegates' Handbook.

*Scientific Work.*—Best evidence of the fine accomplishments of the Committee on Scientific Work is the program arranged for the 77th Annual Meeting of the State Society.

*Medical Preparedness Committee.*—This group was presented with a great task upon the declaration of war December 8. Its work is becoming more and more arduous due to the rapidly developing war efforts of the medical profession. The committee deserves much commendation for its labors, its successful integration of its activities through the 83 counties, and for its coöperation with the Procurement and Assignment Committee of Michigan.

*Postgraduate Medical Education Committee.*—Due to the establishment of five new centers of extra-mural postgraduate medical education in the Upper Peninsula, which programs were well received by the medical profession in that area, the work of this committee continues to expand and become more important to the individual member of the Society.

*Industrial Health Committee.*—"The Status of Industrial Health in Michigan," the first of a series of state surveys made by the American Medical Association in coöperation with the MSMS Industrial Health Committee, was completed in March, 1942, coming in war time when it is doubly valuable. The other activities of this committee are recounted in its annual report.

*Special By-laws Study Committee.*—The Council appointed a committee to study the MSMS By-laws provisions relative to problems of medical ethics. The recommendations of this committee, approved by The Council, will be presented to the House of Delegates by its Chairman, C. L. Hess, M.D.

It is impossible to devote adequate space to detail the activities of all the committees which have been developing long-range programs, the effect of such planning becoming increasingly apparent as these projects continue to mature.

The Council is grateful to all committee chairmen and members for outstanding services performed on behalf of the 4,621 members of the State Society.

### Contacts with Governmental Agencies

The most important function of the Michigan State Medical Society has become its contacts with governmental agencies, both federal and state.

*War Department, and Procurement and Assignment Service.* The major contacts of the year, especially since declaration of war, have been with the Medical Departments of the Army and Navy, the Sixth Corps Area, and the Procurement and Assignment Service.

The facilities of the MSMS Executive Office were offered to the Procurement and Assignment Committee of Michigan and to Civilian Defense during the past year. The Council recommended that the examination of Selective Service draftees be corrected and modernized, making the first examination by trained, paid personnel, complete and final; it also recommended that the War Department offer higher commissions to Doctors of Medicine on the basis of medical experience and training. Directives accomplishing these desired results were issued by the War Department. The Federal program for Rehabilitation of Rejected Draftees, with tests being made in the states of Maryland and Virginia, has been watched consistently by The Council and its Executive Committee; it would appear that governmental officials are not hopeful for success for this project. Regardless of success or failure of the test, The Council reiterates the judgment of the House of Delegates that some plan of rehabilitation of draftees, in which the physician-patient relationship and free choice of doctor is maintained, should be prosecuted, if for no other reason than as a builder of morale.

*The Farm Security Administration's* desire to experiment with its program in a Michigan county was complicated by the ruling of the Michigan Crippled Children Commission that "the fee schedule in operation for medical and surgical care of afflicted adults in any particular county shall be the fee schedule for the care of children hereunder in that county." No county has been willing to try the proposed project as it might jeopardize its standing with the Commission. The Council authorized a study committee to investigate the merits of the FSA project, based upon experiences in other states.

*The Governor* of the State requested the Society to place in nomination the names of physicians for the various State Boards in which the medical profession might have an interest. The Council was happy to comply with this request.

*Michigan Crippled Children Commission.* Excellent relations exist between the State Society and the Commission. A joint meeting of the Executive Committee of The Council and the Commission's Executive Committee was held in April of this year.

During the year, problems associated with the roentgenologist and orthopedists were solved with the aid of the MSMS Council. An opportunity was given the State Society to study and offer recommendations concerning revisions in the schedule of benefits and the Rules and Regulations of the Commission, as well as the Qualifications for Hospitals. Finally, a Technical Advisory Committee to the Commission was appointed on nominations made by the State Society at the Commission's invitation.

*A special MSMS committee* was formed on invitation to offer recommendations to the State Committee to Study and Rewrite the Workmen's Compensation Law; this group presented the results of its deliberations to the Study Committee on June 4.

*Basic Science Board.* A special contact committee to maintain relations with this Board was appointed in December and it reports progress in its coöperative endeavors. The value of an active and alert Basic Science Board to the health and welfare of the people of Michigan cannot be over estimated.

*State Health Department.* Harmonious coöperation with the various Bureaus of the State Health Department continues to exist. An accelerated campaign of

immunization against diphtheria and smallpox was inaugurated in February and has continued with marked success. The distribution of the excellent brochure, "The Treatment of Pneumonia," to all society members through the county society secretary, was assumed by the State Society. The joint sponsorship of field representatives in Cancer Maternal Health and Pediatrics has been maintained with good results throughout the State.

*The State Board of Registration in Medicine* was encouraged in its desire to seek necessary changes in the Medical Practice Act, especially with reference to the qualifications of Board members and also to permit the telescoping of the four-year medical school education course into three calendar years as a wartime measure. After lengthy negotiations, the problem of an Inspector for the State Board of Registration in Medicine was satisfactorily solved during the year.

*State Social Welfare Commission.* The State Society coöperated in the Commission's rehabilitation studies and recommended that members aid in this project. It is to be noted that a few county medical societies still retain a Welfare fee schedule which is well below the cost level of approximately 50 per cent of normal fees; The Council again urges that these county societies make a supreme effort at this time to have their fees for indigents, particularly afflicted adults, raised to cost-price fees, in order that their members shall not be penalized by receiving less than cost fees from the State for the medical care of Afflicted Children.

### Contacts with Nongovernmental Agencies

During the past year, the State Society continued to strengthen its friendly contacts with other groups interested in the distribution of medical service to the public. These are too numerous to mention but all were given service and advice at all times upon request. Contacts with the dental, nursing, pharmaceutical and bar groups were frequent and pleasant.

*National Foundation for Infantile Paralysis.* An invitation from the Michigan Chapter to appoint an MSMS representative to the Advisory Committee of the Board of Directors was accepted by the State Society. In addition, the State Society's invitation to the National Foundation to sponsor a scientific exhibit at the 1942 annual meeting was accepted.

*Michigan Tuberculosis Association.* The request of this Association that the State Society join in the sponsorship of tuberculosis pamphlets was accepted, and a number of brochures were jointly developed and distributed to the laity.

*Michigan Medical Service.* Up-to-the-minute statistical data on Michigan Medical Service will be presented in the Supplemental Report of The Council on September 21. The Delegates, as Members of Michigan Medical Service, will receive detailed reports concerning the corporation at the MMS Membership Meeting of Tuesday, September 22, in Grand Rapids. The Council authorized the appointment of a committee to make a study of Michigan Medical Service, the committee to be, in so far as possible, an impartial body. The Council reports that, although it made strenuous and continuous attempts to organize this group, its efforts failed. Four physicians agreed to serve as members (one subsequently resigning), but no one would accept the Chairmanship, although ten physicians were requested and urged to serve. Without a leader, the committee held no meetings.

*The American Law Institute.* A minority group of this Institute attempted to eliminate from the Principles of Evidence of the Institute the confidential physician-patient relationship; happily, a majority at the May 11-12 meeting in Philadelphia voted against this suggestion, after hearing presentations by representatives of the medical profession and the strenuous objections of the leading jurists and legal minds of the country.

### Miscellaneous Business

Cult Activity. The Council continued its search for a test case to define definitely the legal boundaries of a limited practitioner's activity. Three promising cases arose during the year, each one of which was given serious and detailed consideration by The Council, but none was sufficiently clear-cut to merit a review before the court of last resort. The search for an ideal case is being continued. The attempt of certain cultists to gain an entering wedge in medical hospitals by seeking permission to do laboratory work therein was given firm discouragement and disapproval by The Council.

A pseudo cross-eye-straightening "league" sponsored two large paid advertisements in a metropolitan newspaper of Michigan which confused the public and resulted in many questions on this "method" being presented to the Society. A special committee of The Council took action in the matter and it is hoped the avenues of publicity in the future will be closed to this blatant and misleading advertising of a nonmedical practitioner.

### Progress in 1942

Progress is marked by forward steps. A step of a monumental nature was made in 1942 in the creation of the "MSMS Foundation for Postgraduate Medical Education," following the recommendation of the 1941 House of Delegates and after considerable study by The Council and its Postgraduate Medical Education Committee. The ultimate development of the endowment will insure a continuation and an increase in the standard of postgraduate medical education, in which Michigan is now leading other states of the country. The Trust Agreement of the Foundation was signed in June. A sum equivalent to $10,000 was placed in the Trust by The Council in July (following the instructions of the 1941 House of Delegates), and already one donor (a Doctor of Medicine) has allocated a substantial portion of his estate for this postgraduate endowment. It is hoped that many more physicians, and thoughtful laymen, will follow in this generous patron's footsteps. A recommendation on this subject follows.

### Emergencies

Federal Social Security Board's Plan to Subsidize Hospital Patients. During the year, the Social Security Board announced its interest in a plan to increase taxation under the Social Security Act by 1%, of which 0.5% would be paid by the worker and 0.5% by the employer, with a view to provide every insured worker and his dependents during periods of hospitalization with the sum of $3.00 a day. The plan would involve also a cash allowance to cover disability due to illness. The program would cover approximately 115,000,000 persons in the United States! The MSMS membership was informed immediately of this obvious goal for a complete compulsory sickness insurance plan. A recommendation on this national trend follows.

### Recommendations

1. That the House of Delegates consider the adoption of a Resolution opposing any scheme leading to a complete compulsory sickness insurance program organized and maintained by the government.

2. That the House of Delegates consider authorizing the MSMS Legislative Committee to coöperate with any reputable organization, association or agency which has as its goal the repeal of that portion of the State Narcotic Act which now places an annual state tax on every physician; the original purpose of the tax (education of laity against use of marihuana) has not been accomplished and the impost represents misrepresentation as well as discriminatory taxation inasmuch as physicians already pay a similar federal licensure fee.

3. That the House of Delegates endorse the efforts of the Michigan State Board of Registration in Med-

icine to obtain necessary amendments to the Medical Practice Act in the 1943 session of the Michigan Legislature, and that a recommendation be respectfully transmitted to the Board that a total revision of the Act be not attempted at any one time, for obvious reasons.

4. That the House of Delegates consider the adoption of a resolution to encourage Doctors of Medicine —as well as laymen interested in sound medical service fostered through medical education, and particularly of that part of medical education which contemplates the provision of continuing facilities after graduation—to contribute during life and in their wills to the Michigan State Medical Society Foundation for Postgraduate Medical Education.

5. That the House of Delegates seriously consider the matter of the medical profession's delicate public relations when a delegate moves for an Executive Session to discuss a subject of neither grave nor confidential import. Executive sessions are necessary and frequently are an expeditious way of handling a problem but it may not always be necessary to clear the room. In the past, this action has offended some of our members as well as our good friends of the fourth estate.

6. That the House of Delegates give serious consideration to the necessity for a modest raise in State Society dues, in event the war is prolonged beyond 1942, in order to make up the deficiency caused by the remission of dues of over 1,200 military members (military members by December 31, 1942). As in the past, the doctors who remain at home must willingly carry the burdens of the physicians who are able to enter the armed forces of the United States.

Respectfully submitted,

A. S. Brunk, M.D., Chairman
O. O. Beck, M.D., Vice Chairman
Wilfrid Haughey, M.D., Chairman, Publication Committee
V. M. Moore, M.D., Chairman Finance Committee
E. F. Sladek, M.D., Chairman County Societies Committee
C. E. Umphrey, M.D.
P. A. Riley, M.D.
R. J. Hubbell, M.D.
R. S. Morrish, M.D.
T. E. DeGurse, M.D.
W. E. Barstow, M.D.
R. C. Perkins, M.D.
A. H. Miller, M.D.
W. H. Huron, M.D.
L. J. Johnson, M.D.
R. H. Holmes, M.D.
P. L. Ledwidge, M.D., Speaker of the House
H. R. Carstens, M.D., President
H. H. Cummings, M.D., President-Elect
L. Fernald Foster, M.D., Secretary

## ANNUAL REPORT OF MEDICAL PREPAREDNESS COMMITTEE, 1942

Your Medical Preparedness Committee held eight meetings during the past year. Its first meeting (November 4, 1941) was before "Jap Sunday" and at its seven subsequent meetings, it attempted to keep pace with, if not be actually ahead of, a swiftly moving war with constantly changing scenes and action.

At its first meeting, the Committee authorized the preparation and mailing of a questionnaire to all physicians in Michigan, whether members of a county medical society or not, in an endeavor to classify physicians for the type of military or non-military medical service they are qualified to render during war.

Your Committee also recommended by resolution to the Surgeon General of the Army, the National Research Defense Council, and the Sixth Corps Area Commander, that prompt consideration be given to the following important matters: 1. That certified medical specialists be given initial commissions, not lower than the rank of Major; 2. That more rapid advancement in rank be provided for medical officers; 3. That special ratings with higher pay schedules be provided for medical officers; 4. That doctors of medicine be restricted to medical work, eliminating nonprofessional duties; 5. That more efficient use be made of the services of present medical officers; i.e., limiting them to professional duties and keeping them sufficiently occupied therewith.

The Committee also urged hospital administrators and the deans of our medical schools to encourage interns and residents to seek commissions in the armed forces.

The deans of the two Michigan medical schools attended meetings of the Committee and presented analyses of the number of applications for commissions made by medical students, interns, residents, and members of their faculties. Each medical school has sponsored a General Hospital Unit which, together with General Hospital Seventeen (Harper Hospital, Detroit) will represent approximately 200 physicians to be moved out of Michigan in these groups during 1942.

### Needs of Armed Forces—18,800 Doctors as of July 1, 1942

After Demember 7, 1941, the need for medical officers in the Army and Navy rose to a total of 18,800 as of July 1, 1942, which figure was revised upward from time to time and was considered in the deliberations of this Committee in its subsequent meetings. A special letter concerning enlistments and commissions in the Army and Navy was authorized and sent to all MSMS members.

The Committee recommended that safeguards be established for those physicians who volunteer so that the hospital guarantees that their staff positions will be retained, upon their discharge from active military duty. Most hospitals in Michigan have complied with this request.

The Committee also recommended that the Advisory Board to the American Specialty Boards be contacted recommending that doctors who go into service be protected, particularly on the qualification of time, in their certification for specialty boards. Subsequently, the Advisory Board reported to your cvommittee that time, up to a year, is being credited by the Specialty Boards.

### Procurement and Assignment Service

Procurement and Assignment Service, and the appointment of P. R. Urmston, M.D., as Chairman of the Procurement and Assignment Committee by the President of the United States, was announced at the January 14 meeting of the Medical Preparedness Committee. In this capacity, Dr. Urmston is a federal appointtee responsible to National Procurement and Assignment Service.

A special meeting to explain Procurement and Assignment to all members was arranged on March 10 by your Committee. This highly successful informative session was held in the Detroit Institute of Art and was attended by approximately 1,300 physicians from all parts of Michigan.

Your Committee integrated through the counties the work of the Procurement and Assignment Service, successfully stimulating the appointment of P. and A. committees in every County or District medical society of Michigan.

In order to hasten the commissioning of medical officers, a decentralization of Procurement and Assignment Service was effected as the result of a Washington conference on April 24 attended by the Chairman. Thereafter the State Procurement and Assignment Committee cleared all applicants for commissions

as to availability, and the Michigan State Medical Society processed physicians concerning professional standing and ethics, and the new Medical Department Officers Recruiting Board of Michigan was established to grant commissions with the least practicable delay. The Medical Recruiting Board will not commission a physician unless he is cleared by the Procurement and Assignment Committee.

At its May meeting, the Committee outlined the procedure of the Procurement and Assignment Committee in relation to the Medical Recruiting Board, and heard reports on results from the streamlining of the medical recruiting and the procurement service. It accepted the offer of the MSMS Executive Committee of the Council which made available to the P. and A. Committee the facilities of the Executive Office in Lansing.

Chairman Urmston reported on the Corps Area Procurement and Assignment Committee meeting in Chicago May 10 called to discuss hospitals, teaching institutions, clinical groups, residencies, and interns, and their positions in relation to the war effort; a notice was authorized and sent to all teaching institutions, indicating that they may expect that 50 per cent of the residents will enter the armed forces of the United States in 1942.

The profession should appreciate the tremendous task of mobilizing the medical profession for the armed forces while at the same time insuring the needs of civilian population in a total war effort.

### Industrial Health

In order that industrial plants, especially those engaged in war industry, be not depleted of essential medical service, your Committee called upon the MSMS Industrial Health Committee for a list of all full-time physicians in war industry, and its advice concerning their essentiality for industrial medical service or their availability for service in the armed forces. In this, the Industrial Health Committee and its Chairman, J. Duane Miller, M.D., have coöperated fully.

### Civilian Defense

This phase of war was given its proper important attention by your Medical Preparedness Committee. On December 18, 1941, it adopted a resolution which was sent to all county societies relative to the necessity for leadership of the medical profession in civilian defense, and urging the nomination by the county medical society of a local chief of emergency medical services, as well as the appointment of an Advisory Council to the local chief. Every county society coöperated.

Your Chairman, as chairman of the Sub-committee on Medical and Health Activities of the Michigan Council of Defense, integrated the work of the MSMS Medical Preparedness Committee with that of the Michigan Council of Defense, in all its medical phases.

L. H. Gaston, M.D., Dansing, appointed as full-time Deputy Chief of Emergency Medical Service (Civilian Defense) for Michigan, was introduced at the Medical Preparedness meeting of May 10. The Committee aided Dr. Gaston in his organizational work, and is happy to report that the medical profession of Michigan has responded in a splendid manner in its work of preparing for protection of the civilian population against enemy action.

### Miscellaneous

During the year, the Medical Preparedness Committee sponsored five "Victory Bulletins" sent to the MSMS membership. These letters contained important and timely information relative to the Medical Recruiting Board of Michigan, Procurement and Assignment of Physicians, the needs of the armed forces, and civilian defense activity.

Your Committee approved an accelerated program of immunization against diphtheria and smallpox as part of the civilian defense effort, particularly in war industry areas of Michigan, and requested the Michigan Council of Defense to publicize the need for this immunization program.

Since hundreds of medical practitioners are going into the Army or Navy, the possibility that full-time health officers, particularly those in rural areas, might be asked to engage in the private practice of Medicine, was considered by your Committee which recommended that this suggestion be not approved.

Your Committee adopted a recommendation to the War Production Board that the proposed new hospital at Ypsilanti (FWA project) be given a high priority rating due to the urgent need for this facility.

The Committee wishes to thank all who in any way coöperated and aided it with its great amount of organizational work during the past year, particularly the MSMS Council and its Executive Committee, and all Michigan county medical societies which coöperated with the MSMS questionnaire, in the creation of Procurement and Assignment Committees, in the furnishing of vital information concerning practitioners, in the appointment of local chiefs of emergency medical services and advisory councils thereto, and which participated in Selective Service activities.

Respectfully submitted,

P. R. Urmston, M.D., *Chairman*
F. G. Buesser, M.D.
L. Fernald Foster, M.D.
Harold A. Furlong, M.D.
C. D. Moll, M.D.
C. I. Owen, M.D.
H. H. Reicker, M.D.
J. G. Slevin, M.D.

**PAPERS WILL BEGIN AND END ON TIME!**

Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time, and to close exactly on time, in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

# MALPRACTICE AND WAR*

LEO. M. FORD, LL.B., J. D.
Fort Wayne, Indiana

The war has sent the American men marching again. Where they are going is uncertain. All parts of the globe have become battle fronts and the seven seas their supply lines. The doctor is on his way; to protect the life and health of our soldiers and sailors wherever they are sent. Many diseases will be encountered not ordinarily found in their native land. Such is total war, not only from the standpoint of the type of warfare and the number of men involved, but the massing of armies drawn from every environment of every part of the globe.

The doctor naturally inquires as to his rights and liabilities under these circumstances. What is the malpractice status of the men in the armed forces of the United States? How does the war affect the statute of limitations when the doctor is absent from his home state? What statute of limitations applies when professional services are rendered in a foreign state or nation or on the high seas? The answer to these questions will be helpful to the doctors in military service.

## Civil Status and Liability of Persons in Military or Naval Service

Persons belonging to the military service are not by reason of their military character, relieved of their duties and liabilities or deprived of their rights as citizens. One in military service is still a citizen, and as such is always amenable to the civil authorities. *The Journal of the American Medical Association* on September 13, 1941, said:

"A person in the military service may claim that an officer of the medical corps has in some manner been guilty of malpractice in treating or examining him in the line of duty. A similar claim for alleged malpractice may be pressed against an examining physician for a local Selective Service board by a selectee called before that board. The fact that a person is in the military service, or is in the course of being inducted therein, does not prevent him from asserting his civil rights as long as the interests of the service or of national defense are not concerned. Hence the Judge Advocate General of the Army has held, quite properly, that members of the Army are entitled to the same civil rights of action between one another with reference to suits for malpractice or negligence as they would have in civil life. Without doubt the same degree of care, diligence and professional ability required of any physician with respect to the care of patients in civilian life is required by law of a medical officer of the Army or of an examining physician for a local board in his care or examination of a member of the service or of a selectee called for the purposes of induction. For a departure from such standards resulting in harm to the patient the medical officer or the examining physician would be liable in a civil suit by the aggrieved patient the same as though both the patient and the physician were in civil life. . . .

"A communication from the office of the Judge Advocate General of the Army dated May 1, 1941, indicates that in the past the War Department itself has not undertaken the defense of a civil suit for malpractice brought against a member of the medical corps but that the defendant medical officer has had the right to have the case removed to a federal court and to be defended by a United States attorney designated by the Department of Justice. If, however, according to this communication, a judgment was to be rendered against such a medical officer, there is no provision by law by which the judgment could be paid by the government or by which the defendant physician could be reimbursed by the government. . . .

"While the defense measures indicated that will be available to medical officers and examining physicians for local boards will undoubtedly be helpful, physicians concerned cannot safely discontinue such forms of malpractice insurance protection as they previously have carried. In the communication previously referred to, the Judge Advocate General's office states that malpractice suits by persons in military service against members of the medical corps have thus far been quite rare. Therefore, since patriotic coöperation may be expected from all persons and corporations during the national emergency, especially favorable premium rates should be obtainable from insurance companies for policies to protect physicians in the service and local board physicians against claims for malpractice that may rise from the performance of their duties to the service and to the national government."

One, therefore, in military service has a civil liability for acts of malpractice resulting in damage to a patient.

Enforcement of this right under the circumstances of this war leads to many technical questions. It is fundamental that no law has of its

*This article is Part IV in a series of authoritative discussions on Medical-Legal problems written by Mr. Ford, Attorney for the Medical Protective Company, Fort Wayne, Indiana.

own force any effect outside the territory of the state or nation from which its authority is derived. Foreign laws or rights based thereon will, within certain limits, be given effect or enforced everywhere. Every person who is found within the limits of a government is bound by its laws so far as they are applicable to him. The extra territorial force given to foreign law may be said to result from the mutual respect which from motives of policy other states or nations are disposed to yield to them. Effect being given to them with regard to enlightened self-interest, common convenience and mutual benefits and necessities. Foreign laws or rights based thereon are therefore given effect or enforced under the doctrine of comity under which such enforcement is permitted. A tort right for malpractice is governed by the law of the land where the tort is committed, and not by the law of the forum where the right is asserted. A tort therefore arising under foreign law, not penal or local in character, will be enforced if the court has jurisdiction of the parties and can do substantial justice between them in accordance with its forms of procedure, if the foreign law is not contrary to the public policy of the forum. Tort rights (malpractice), based on foreign statutes are ordinarily enforceable as are other tort rights and are subject to the same limitations. In those cases in which the law of the forum will recognize and enforce a cause of action for tort (malpractice) arising under a foreign law, it will also recognize and enforce defenses available under such law unless against the policy of the law of the state in which enforcement is sought.

Courts assuming jurisdiction in an action for tort must apply the law of the state or nation where the cause of action arose. If therefore, a doctor treats a patient in a foreign state or in a foreign nation the law of the place of injury applies although enforcement of the alleged right is sought in the doctor's home state. The statute of limitations in the state or nation where the alleged malpractice was committed applies to the cause of action although the right is asserted in the doctor's home state. The enforcement therefore of causes of action for alleged malpractice following this war will necessarily include questions involving the law of England, Australia, Iceland, or any other nation in which American forces are sent.

### Maritime Torts

Generally the law of the flag governs torts aboard ships on the high seas, while the law of the state or nation governs torts aboard ships in territorial waters of the state or nation. In determining the law to govern in a case of maritime torts consideration must be given the flag which the vessel or vessels involved fly as to whether the tort complained of occurred on the high seas or in the territorial waters of the state or nation.

A vessel on the high seas is regarded as constituting a part of the territory of the nation to which she belongs and under the law of the United States as a part of the territory or state to which she belongs. Hence in accord with the rule, in case of tort committed on vessels on the high seas the governing law is that of a nation to which the vessel belongs. In the case of torts committed on board a vessel which is at the time in the territorial waters of a state, it is the law of that state which governs, without regard to the flag which the vessel flies.

### Statute of Limitations

The Soldiers and Sailors Civil Relief Act, approved October 17, 1940, was adopted to take the place of those parts of the Selective Training Service approved September 16, 1940, and The National Guard Act approved August 27, 1940. The purpose of this act is to suspend the enforcement of certain civil liabilities of persons in military service. Sec. 525 provides:

> "The period of military service shall not be included in computing any period now or hereafter to be limited by any law for the bringing of any action by or against any person in military service, or by or against his heirs, executors, administrators, or assigns, whether such cause of action shall have accrued prior to or during the period of such service."

You will note from this section that the period of military service shall not be included in computing the time for the bringing of any action against any person in military service. The section applies to the plaintiff as well as to the defendant. If a person has a claim against another who is in military service he does not have to bring his action against such person until after the termination of such military service. The

statute does not run against one in military service. Sec. 523 provides as follows:

"In any action or proceeding commenced in any court against a person in military service, before or during the period of such service, or within sixty days thereafter, the court may, in its discretion, on its own motion, or on application to it by such person or some person on his behalf shall, unless in the opinion of the court the ability of the defendant to comply with the judgment or order entered or sought is not materially affected by reason of his military service—

(a) Stay the execution of any judgment or order entered against such person, as provided in this Act; and

(b) Vacate or stay any attachment or garnishment of property, money, or debts in the hands of another, Whether before or after judgment as provided in this Act."

The act is therefore in fact a moratorium on the enforcement of civil liabilities of persons in military service. A doctor in military service therefore has very little protection from the statute of limitations. A disgruntled patient after the war is over may, at any time during the period of limitations provided by the foreign state or nation, maintain an action against the doctor in his home state. Since Congress has the power to declare war, pass the Selective Service Act and to appropriate billions of dollars for the conduct of the war, it undoubtedly has the power and authority to pass laws to protect the rights of persons serving in the military or naval branches of the government during the emergency.

### Insurance

The insurance companies providing protection for doctors should be able to offer the profession protection during the emergency. At least one company has done this and has carried out the suggestion of the American Medical Association of furnishing the protection at a reduced premium. The question of protection should have the doctor's careful consideration before entering the service.

## CLASSIFIED ADVERTISING

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## POLIOMYELITIS RESEARCH IN MICHIGAN

Search for a substance which will prevent or aid in curing poliomyelitis will be continued in the Lansing laboratories of the Michigan Department of Health for another year, financed in large part by a recent grant of $13,210 from the National Foundation for Infantile Paralysis, Inc.

A total of $64,910 is given four Michigan institutions: the State Health Department, the University of Michigan medical school and school of public health and Wayne University college of medicine. A larger sum is returned to Michigan by the Foundation than was contributed in the state in the drive for funds during the celebration of the President's birthday.

## WAR AGAINST VENEREAL DISEASE

Large scale attack against venereal diseases in military and industrial areas in Michigan is being conducted by military and naval authorities, federal security agencies and state and local health departments.

**Physicians in the armed services work with civilian law enforcement and health agencies in tracing infection to and eliminating its known sources, clinics are supplying free treatment for infected civilians when necessary, anti-vice campaigns are cleaning up districts where infection is spread and an aggressive campaign of education is creating an awareness among servicemen and civilians concerning the dangers of venereal disease.**

The problem of venereal disease control in military, naval and war industry areas was recognized in an agreement reached in May, 1940, among war and navy departments, the Federal Security Agency and state health departments on "measures for the control of venereal diseases in areas where armed forces or national defense employes are concentrated."

Interchange of information concerning civilians who are suspected is made among army and navy authorities and state and local health departments. Statements of infected servicemen concerning civilian sources of infection are turned over to state and local health departments for investigation. Suspects are examined and treatment is furnished when infection is found. In turn, state and local health departments report all known contacts of enlisted men and infected civilians to military and naval authorities.

Law enforcement agencies are waging a vigorous campaign to suppress commercialized and clandestine prostitution. The campaign is being waged across the state from Detroit to Benton Harbor.

*Twenty-six venereal disease clinics have been set up in Michigan since May, 1941, to provide treatment for infected civilians. Recently established clinics are in Ypsilanti, Monroe and Albion and a clinic will be functioning shortly in Sault Ste. Marie.*

The army's recognition of the importance of the problem has resulted in the establishing of a venereal disease control division under the Surgeon General and a medical officer of the United States army is assigned to full-time venereal disease control work at Fort Custer.

## THIRD ANNUAL RAGWEED POLLEN STUDY

As a service to hay fever sufferers, the Michigan Department of Health began its third ragweed pollen study on July 1 with observers at forty-four places in the Upper and Lower Peninsulas coöperating to provide a pollen count throughout the summer.

Last year's survey showed that the areas where pollen counts were low were in the northern part of the state, some inland and some along the lake shorelines. Results of the pollen surveys in 1940 and 1941 reveal that pollen contamination of the air in Michigan reaches its peak during the last week of August and the first week of September.

## NEW VENEREAL DISEASE LAW SENDS TWELVE TO HOSPITALS

Michigan's new law for the control of venereal disease has been used by authorities in Detroit and Dearborn to send twelve infected persons to hospitals for treatment.

**Passed by the Legislature in February of this year, the law is one of the strongest venereal disease control measures in the country. In addition to providing for compulsory hospitalization for those who refuse treatment, the law requires that anyone arrested and charged wih prostitution must submit to a physical examination. Physicians are required to report to the state or local health department every case of venereal disease within twenty-four hours from the time the presence of the infection is determined.**

The twelve persons in Detroit and Dearborn were confined to hospitals only after all other attempts to bring them under treatment failed. They were sent to the hospitals on probate court orders. The new law gives the judge of probate this authority.

# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

*Don M. Howell, M.D.,* formerly of Alma, announces the opening of offices in the Wiechmann Building, Saginaw, for the practice of eye, ear, nose and throat in that city.

* * *

*The Michigan Department of Health* moved to its new home on DeWitt Road, about three miles northwest of Lansing's business district on July sixth. The new building, opposite the State Laboratories, offers more ample quarters for the many Bureaus of the State Department of Health.

* * *

*Successful immunization program:* The Michigan Department of Health advises very gratifying reports on immunization against diphtheria and smallpox in the Kalamazoo City-County area where 24 physicians gave immunizations to 3,403 children; also in Niles where 1,595 children were immunized.

* * *

*S. V. Dusseau, M.D.,* Erie, Michigan, was honored recently on the completion of fifty years in the active practice of Medicine. He received his medical degree from the University of Kentucky on June 20, 1892, and has practiced in Erie till the present time. He has been a member of the Monroe County Medical Society since it was organized November 21, 1895. He was present at the first meeting on that date.

* * *

*E. H. Bobst,* President of Hoffmann-La Roche, Inc., of Nutley, New Jersey, recently announced that all present employes who had entered in their employ prior to January 1, 1941, would receive a bonus equal to two weeks salary in War Bonds. Employes who entered prior to July 1, 1941, would receive one week's salary in War Bonds. The amount of the bond is computed on the present purchase price.

**Institute for September 22 Cancelled**

Due to difficulty in obtaining outstanding speakers for the Institute planned for Tuesday, September 22, 1942 (the day prior to the opening of the MSMS Scientific Assembly in Grand Rapids), the MSMS Preventive Medicine Committee and its Advisory Committee on Heart and Degenerative Diseases have decided to cancel the 1942 plans and to hold in abeyance the convening of an Institute until after the War.

*Order No. 96* issued by the Federal Communications Commission on May 18, 1942, requires all physicians who own diathermy machines to register each machine with the Commission. The original order called for the registration to be completed by June 8, 1942, but the Commission's Cleveland office made the following statement: "The registration date has been extended a few days. No doubt the Commission will extend the date of registration, so that all machines can be fully taken care of without penalty."

* * *

*The Wayne County Medical Society's Committee on War Bonds* reports that the response of the members of the Society to purchase War Bonds has been most excellent. The executive Office of the WCMS provided forms and aided the physicians in obtaining the bonds. Members of the War Bond Committee of the Wayne County Medical Society are R. C. Jamieson, M. D., Chairman; Earl Bloomer, M.D., Frederick Hanson, M.D., Roy Jones, M.D., Allan McDonald, M.D., D. J. Sandweiss, M.D., and B. R. Springborn, M.D.

* * *

*"Care of the Newborn Premature Infant"* by Allan C. Barnes, M.D., and J. Robert Willson, M.D., Ann Arbor, appeared in THE JOURNAL of the AMA, issue of June 13, 1942.

"Morphology of Spirocheta Pallida in the Electron Microscope" by Udo J. Wile, M.D., Robert G. Picard and Edna B. Kearney of Ann Arbor, appeared in the JAMA, issue of July 11, 1942.

"Hemothorax Complicating Heparin Therapy" by John W. Keyes, M.D., and Carl F. Shaffer, M.D., Detroit, appeared in the July 11th issue of the JAMA.

* * *

*Franklin H. Top, M.D.,* Detroit, advised that as of April 1, 1942, a change was made in the administrative setup of the Herman Kiefer Hospital, Detroit. Mr. G. R. Harris was appointed Hospital Administrator and Doctor Top was appointed Medical Director. Mr. Harris was formerly Superintendent of Public Welfare for Detroit. Doctor Top still retains his former position as Director of the Division of Communicable Diseases and Epidemiology of the Detroit Department of Health and Herman Kiefer Hospital.

* * *

*The 1,000-bed military hospital* to be established in Battle Creek in buildings purchased from the Battle Creek Sanitarium is to be known as the Percy L. Jones General Hospital, in hon-

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or of the late Colonel Percy L. Jones who served as a medical officer in the Army for more than thirty years and was decorated with the Distinguished Service Medal after World War I. Colonel Jones was a close friend of Colonel Norman T. Kirk, who will command the hospital. Major General James C. McGee, Surgeon General of the Army, made the suggestion that the hospital be so named.

* * *

*"One of the most important points* concerning the relationship of principal and agent is that a principal can only lawfully do through the medium of an agent what the principal may lawfully do independent of the relationship. In the domain of medicine and surgery, as well as other branches of the healing art, the most common acts for the performance of which agents are appointed constitute those whose legality physicians and surgeons have obtained by virtue of their license to practice."—Carl Scheffel, M.D., L.L.B., "The Utilization of Agents in the Practice of Medicine and Surgery."

* * *

*Carleton Dean, M.D.*, Medical Director of the Michigan Crippled Children Commission, announced on July 6, 1942, the appointing of the following physicians as a Technical Advisory Committee to the Commission: Wm. P. Woodworth, M.D., Ophthalmology, Detroit; Frank Van Schoick, M.D., Pediatrics, Jackson; Chas. W. Peabody, M.D., Orthopedics, Detroit; A. L. Arnold, Jr., M.D., General Practitioners, Owosso; Harold A. Miller, M.D., Obstetrics and Gynecology, Lansing; Frederick A. Coller, M.D., Surgery, Ann Arbor; Ivor Reed, M.D., Internal Medicine, Detroit.

* * *

*Grants totaling nearly $65,000* were made to Michigan institutions by the National Foundation for Infantile Paralysis, Inc., for Virus Research. The grants to Michigan are part of a total of $325,844.25 made to 26 institutions in all parts of the United States and Canada to carry on virus and after-effects research work and education in the fight against infantile paralysis. These grants are made possible through the funds raised annually in January during the various celebrations of the President's Birthday. The following grants were made in Michigan for Virus Research: University of Michigan, School of Public Health, $40,000; Michigan Department of Health, $13,210; University of Michigan, $7,000; Wayne University, College of Medicine, $4,700.

* * *

*Plans for the physical rehabilitation* of men rejected by the Army as unfit for military service have been abandoned, according to Major General Lewis B. Hershey, national director of selective service, who addressed the 1942 Annual



*Say you saw it in the Journal of the Michigan State Medical Society*

Convention of the American Medical Association in Atlantic City recently. General Hershey stated that the results of tests in Maryland and Virginia did not warrant a continuation of the program, particularly in the face of a scarcity of hospital space and a premium on the time of doctors of medicine. He also stated that the need for rehabilitation had become less pressing since the lowering of Army physical requirements has brought twenty per cent of those formerly rejected back into 1-A or 1-B for full or limited military service.

* * *

*Columbia University* announces that beginning in September, 1942, a program of professional studies for the training of Physical Therapy technicians will be offered. The training and instruction will extend over a two-year period and has been organized in compliance with the requirements set down for such programs by the Council on Medical Education and Hospitals of the American Medical Association. Entrance requirements are 60 semester hours of college, including courses in physics and biology, or graduation from an accredited school of nursing or an accredited school of physical education. Details may be obtained by writing the Office of the Committee on Physical Therapy, Room 303B, School of Business, Columbia University, New York City.

*The Michigan Department of Health* announces the first training school for clinical laboratory technicians to be conducted in the Michigan Department of Health Laboratories and in selected hospitals started July 1 with seventeen young women and one young man enrolled. Their year's practical training will be financed by scholarship grants by the W. K. Kellogg Foundation. Thirty of these grants will be made annually to graduates of accredited universities or colleges or to senior students who will secure their bachelor's degree after completing a year of practical training. Five and one-half month's work will be completed in the state laboratories, another five and one-half months in a large hospital and one month in a small hospital. Each scholarship has a value of $720. The Department's Bureau of Laboratories has been approved by the Council on Medical Education and Hospitals of the American Medical Association as a training school for clinical laboratory technicians.

* * *

*The Upper Peninsula Medical Society* held its annual meeting at the Northland Hotel, Marquette, on July 23 and 24. Among the guest speakers on the program were Jerome W. Conn, M.D., Ann Arbor; E. S. Gurdjian, M.D., Detroit; Herman H. Riecker, M.D., Ann Arbor; Robert L. Novy, M.D., Detroit; James D. Bruce, M.D., Ann Arbor; A. C. Furstenberg, M.D., Ann Arbor; Norman F. Miller, M.D., Ann Arbor;


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and Frederick A. Coller, M.D., Ann Arbor. The scientific program consisted of presentations on Toxiemias of Pregnancy, panel discussion on Peptic Ulcer, Hypertension, Disturbances of Blood Sugar Regulations, Diagnosis and Treatment of Nasal Accessory Sinus Disease, the Colostomy Problem in Carcinoma of the Rectum, Operative Management of Intracranial Hemorrhage and an excellent colored movie of the Human Cervix in Health and Disease.

Lt. Colonel J. H. Slevin, MC, Surgeon of the Medical Department Officer Recruiting Board, Army of the United States, also addressed the members and took applications for commissions.

L. Fernald Foster, M.D., Bay City and Wm. J. Burns, Lansing, Secretary and Executive Secretary, respectively, of the State Society, were guests at the meeting.

* * *

### 17th and 298th General Hospitals Ordered to Active Duty

General Hospital No. 298, composed chiefly of personnel from University Hospital, Ann Arbor, under the command of Lt. Colonel Walter G. Maddock, M.C., AUS, was activated as of June 27, 1942, and reported to Camp Joseph T. Robinson, Arkansas. Officer personnel is as follows: Surgical Service: Walter G. Maddock, Lt. Colonel, Chief of Service; Edgar A. Kahn, Major, Assistant Chief of Service; George Hammond, Major; Fenimore E. Davis, Major; Robert Shaw, Major; Don Marshall, Major; Kyril B. Conger, Capt.; J. Brown Farrior, Capt.; Elliott T. Thieme, Capt.; Peter Crabtree, Capt.; Wm. J. Fuller, 1st Lt.; Kenneth F. MacLean, 1st Lt.

Medical Service: John M. Sheldon, Major, Chief of Service; Moses F. Frolich, Major; Harry Towsley, Major; S. Milton Goldhamer, Major; Homer A. Howes, Capt.; Charles J. Courville, Capt.; Ralph R. Cooper, Capt.; Wm. L. Cochran, 1st Lt.; and Maurice M. Scurry, 1st Lt.

Laboratory Service: Francis Bayless, Major, Chief of Service; Marshall L. Snyder, Capt.

X-Ray Service: Frank Windrow, Capt., Chief of Service; and John Paget, 1st Lt.

* * *

The 17th General Hospital composed of personnel from the staff of Harper Hospital, Detroit, were activated on July 15, 1942, and reported to Fort Custer, Michigan, under the command of Colonel Henry R. Carstens, M.C., AUS. Medical officer personnel of the 17th General Hospital is as follows: Colonel Henry R. Carstens; Lt. Colonels Lowell B. Ashley and Edward D. Spalding; Majors Thomas T. Callaghan, Douglas Donald, Clair L. Douglas, Harold B. Fenech, Herbert W. Harris, Thomas N. Horan, Charles E. Lemmon, J. Donald Mabley, Solomon G. Meyers, Frank S. Perkin, Alvin E. Price, John C. Tulloch, Wadsworth Warren and Leslie



*Say you saw it in the Journal of the Michigan State Medical Society*

F. Wilcox; Captains Abraham Becker, Morris Beckwitt, Lambert E. Beeuwkes, Hugh M. Fuller, James M. LaBerge, Frederick A. Lauppe, Robert W. McClure, John M. Murphy, Aage E. Nielsen, Carlyle A. Payne, Vernon D. Pettit, John B. Schoenfeld, Carlisle F. Schroeder, Benjamin W. Stockwell, Joseph J. Trombley, Frederick B. Watts, and Milton R. Weed; Lieutenants William G. Belanger, Ralph C. Dixon, Laurel S. Eno, G. Thomas McKean, Edward D. Mollin, Norman D. Nigro, Andrew M. Roche, Edward J. Shumaker, William A. Summers, Robert R. Wessels and Richard E. Wunsch.

* * *

The 36th General Hospital, sponsored by Wayne University, is being rapidly organized under the direction of Lt. Colonel W. C. C. Cole, MC, AUS, in expectation of an early call to active duty.

**New County Medical Society Secretaries**

*W. S. Mackenzie, M.D.,* Adrian, is Secretary of Lenawee County, replacing Geo. H. Wynn, M.D., who is on duty in the Army.

* * *

*Helen S. Barnard, M.D.,* Muskegon, has been appointed Secretary of the Muskegon County Medical Society following the resignation of Thomas J. Kane, M.D., who recently reported for duty with the Army.

* * *

*R. J. Fortner, M.D.,* Three Rivers, is the new Secretary of the St. Joseph County Medical Society, taking the place of S. Albert Fiegel, M.D., who has just left for active military service.

* * *

*A. W. Marcovich, M.D.,* Paw Paw, is replacing J. W. Iseman, M.D., of Paw Paw, who is now located at Fitzsimmons General Hospital, Denver, Colorado, with the Medical Corps of the Army.

**MISSISSIPPI VALLEY MEDICAL SOCIETY**

The eighth annual meeting of the Mississippi Valley Medical Society, "The Mid-West's Greatest Intensive Post-Graduate Assembly for General Practitioners" will be held in the Hotel Lincoln-Douglas, Quincy, Illinois, September 30, October 1, 2. The program will be given by 25 clinician-teachers who will give over forty lectures, demonstrations, instructional courses, et cetera. On September 30 there will be a series of instructional courses by Kansas City clinicians and a complimentary Stag supper. On October 1, a group of well-known Chicago teachers will have charge. A special Physicians' Sports Event program will be featured on this date with prizes for golf, skeet, bowling, archery and horseshoes. The Banquet will be addressed by Dr. Edward H. Cary, of Dallas, Texas, past president of the American Medical Association, and the presidents of the Illinois, Iowa and Missouri State Medical Societies. There will be numerous technical and scientific exhibits. Every ethical physician is cordially invited to attend and no registration fee will be charged physicians in the uniform of the armed forces of the United States. The complete program appears in the September issue of the *Mississippi Valley Medical Journal,* and further information may be secured from the Secretary, Harold Swanberg, M.D., W. C. U. Building, Quincy, Ill.

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FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting September 21st. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting October 19th. Informal courses every week.

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# IN MEMORIAM

**Stanley G. Miner,** of Detroit, was born in Detroit in 1861. He was graduated from the Detroit College of Medicine and Surgery in 1882 and in 1883 joined the faculty of this college. From 1894 to 1924 he was head of the department of otorhinolaryngology and physical diagnosis. He was a member of the Detroit Public Welfare Commission from 1913 to 1919. Doctor Miner was head of the nose, throat and chest department of St. Mary's Hospital from 1918 to 1925. For many years he contributed extensively to medical journals. He was elected an Emeritus Member of the Michigan State Medical Society in 1937. Dr. Miner died June 28, 1942.

**Harry A. Schneider,** of Coldwater, was born in 1885 and was graduated from the University of Vermont Medical School in 1909. He served as a Captain in World War I. He was assistant superintendent of the Lapeer State Home in 1935 when he was elevated to head of the Coldwater institution, which he expanded into a major State unit with facilities for 1,000 children. He died May 26, 1942, while attending a convention in Boston of the American Psycho-Analytical Society.

**Robert T. Tapert,** of Detroit, was born October 1, 1877 in Detroit and was graduated from the Detroit College of Medicine in 1901. In 1902 he was appointed City Physician; a year later, to Assistant Police Surgeon and Physician to the Detroit Baseball Club. He also took a postgraduate course in Surgery in Berlin and Vienna in 1922. He was Chief of Staff of the Deaconess Hospital from 1918 to 1940 and Attending Surgeon of Providence Hospital as early as 1902. Doctor Tapert died May 7, 1942.

# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

DIRECTORY OF MEDICAL SPECIALISTS. Certified by American Boards. 1942. Published for the Advisory Board for Medical Specialties. New York: Columbia University Press, 1942. Price: $7.00.

Aside from the statistical data included in this twenty-five hundred page volume and listing eighteen thousand certified diplomates with considerable pertinent information, it serves as an indication of the trend in medical development, the uniform cataloging of the specialist. It has many practical uses for the physician as well as hospitals and various organizations and agencies.

* * *

SYNOPSIS OF ANO-RECTAL DISEASES. By Louis J. Hirschman, M.D., F.A.C.S., Ex-Vice President, A.M.A., Ex-Chairman, Section on Gastroenterology and Proctology, A.M.A.; Ex-President American Proctologic Society; Chairman, American Board of Proctology, Inc.; Professor of Proctology, Wayne University; Fellow (Honorary) Royal Society of Medicine; Extra-Mural Lecturer on Proctology, Post Graduate School, University of Michigan; Proctologist, Harper, Charles Godwin Jennings, and Woman's Hospitals; Consulting Proctologist, Detroit City Receiving, Evangelical Deaconess, Wayne County Hospitals, Children's Hospital of Michigan, Detroit Tuberculosis Sanitarium, Detroit. With 182 Text

Illustrations and 12 Color plates. Second edition. St. Louis: The C. V. Mosby Company, 1942. Price: $4.50.

After five years, Michigan's great proctologist has thoroughly revised and practically rewritten the first edition. A new chapter on focal infections of ano-rectal origin has been included. The clear and concise clinical style of the author's lectures is contained in this monograph. It is recommended to all practitioners for further knowledge in an oft-neglected field.

THE EYE MANIFESTATIONS OF INTERNAL DISEASES. By I. S. Tassman, M.D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia: Attending Surgeon, Wills Hospital, Philadelphia, Pa. With 201 illustrations including 19 in color. St. Louis: The C. V. Mosby Company, 1942. Price: $9.50.

Ocular conditions are of important diagnostic and prognostic significance in the course of almost any disease. In this practical monograph the relation is emphasized both for the ophthalmologist and the general practitioner, as well as the other specialists. The volume is well illustrated and contains many beautiful colored plates. The typography and the organization are excellent. It is especially recommended to the ophthalmologist.

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY, AND PHARMACOLOGY. For Students and Practitioners of Medicine. By Forrest Ramon Davison, B.A., M.Sc., Ph.D., M.B., Medical Department, The Upjohn Co., Kalamazoo, Mich.; Formerly Assistant Professor of Pharmacology in the School of Medicine, University of Arkansas, Little Rock. Second edition. With 45 illustrations, including 4 in color. St. Louis: The C. V. Mosby Company, 1942. Price: $5.75.

This Michigan pharmacologist has brought up to date the first edition which was published in 1940. It presents a condensed library of practical pharmacology in a usable form for the practitioner. In its seven hundred pages practically all the information the practitioner would desire is to be found with the least possible confusion. The type is rather small but the typography is excellent. It is recommended as a reference book for any practitioner.

THE MANAGEMENT OF THE SICK INFANT AND CHILD. By Langley Porter, B.S., M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.) Dean Emeritus, University of California Medical School and Professor of Medicine; Formerly Professor of Clinical Pediatrics, University of California Medical School; Formerly Visiting Pediatrician, San Francisco Children's Hospital; Formerly Member Health Advisory Board of the City and County of San Francisco: and William E. Carter, M.D., Director of University of California Hospital. Out-Patient Department; Formerly Chief of Children's Clinic, University of California Hospital; Formerly Attending Physician, Los Angeles County Hospital; Formerly Attending Physician, San Francisco Hospital, San Francisco. Sixth revised edition. St. Louis: The C. V. Mosby Company, 1942. Price: $11.50.

This is the sixth edition of this well received text first published in 1922 and makes available numerous greatly altered approaches to the management of sick infants and children as a result of fundamental advances made by the associated sciences. It is essentially a practical book and, of course, emphasizes the clinical side of medicine. The one hundred sixty pages devoted to "methods" include almost every ethical procedure in the handling of infants. It is splendidly illustrated and described. It is recommended for any practitioner interested in the pediatric field.

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THE MEDICAL APPLICATIONS OF THE SHORT WAVE CURRENT. By William Bierman, M.D., Attending Physical Therapist, Mount Sinai Hospital, New York City; Assistant Clinical Professor of Therapeutics, New York University College of Medicine. With a Chapter on Physical and Technical Aspects. By Myron M. Schwarzschild, M.A. Physicist, Beth Israel Hospital, New York City; Instructor of Physics in Radiology, New York University of Medicine. Second Edition. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1943. Price: $5.00.

Here is a complete and inclusive textbook on the medical use of the short wave current. About two-thirds of the book is devoted to practical application of the short wave current. It is well organized. The typography is good and the numerous drawings are instructive. It is recommended to the physician who makes use of the short wave current.

* * *

UROLOGY IN WAR. Wounds and other emergencies of the genito-urinary organs, surgical and medical. By Charles Y. Bidgood, Lt. Comdr. (M.C.) U.S.N.R. Baltimore: The Williams & Wilkins Company, 1942. Price: $2.00.

"This manual has been prepared as a practical guide to medical officers in the field or at isolated places in dealing with emergencies in the urological tract. It is designed especially to help those who are not themselves specialists in urology, but who nevertheless may have to care for emergency conditions arising from wounds or disease in the genito-urinary tract." The typography is excellent; it is nicely arranged and well written and excellently illustrated. It is recommended to any surgeon who may have to do traumatic emergency urological surgery.

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## SOME RHEUMATIC AFFECTIONS OF THE EYE*

DON M. CAMPBELL, M.D.
Detroit, Michigan

Histologists have, by their patient and often ill-requited efforts, told us many important things about the elementary constituents of the various tissues of the body, and these facts have been practically useful to us as physicians and surgeons, by throwing light upon many pathological conditions, and suggesting means of relieving the same. We know, among other things that have thus been brought to light, that there is a strong analogy, histologically, between the elements which enter into the formation of the various joints of the body, and those which form a large percentage of the tissues entering into the composition of the eye and its appendages.

A joint, in rough terms, consists of two cartilaginous surfaces, working upon one another, and surrounded by white fibrous tissue, in the form of ligaments, the whole being acted upon by various muscles, which pass by, and are attached to the bones entering into the formation of the joints.

We thus have cartilage, white fibrous tissue, and muscles as the important histological joint elements.

Now let us look for a moment at the eye.

The eyeball consists of a very dense, tough, white fibrous envelope, the sclerotic, which is modified anteriorly to provide a transparent medium, *viz.,* the cornea. This dense sclerotic coat is the groundwork around which all the other elements are grouped to form this delicate and most wonderfully constructed organ.

Acting upon this dense white fibrous envelope are the various extra-ocular muscles, which give the eyeball a very universal joint movement in its bed of loose cellular tissue.

By this comparison, we see that a joint and the eye are analogous, histologically; in each we have a structure composed largely of white fibrous tissue, acted upon by various muscles which pass by, and are attached to, various adjacent structures, the only difference being that in the eye a pad of soft cellular tissue is substituted for the cartilaginous structure found in joints.

Further, it is a well-known fact that rheumatism has a predilection for the joints, for the various muscular tissues, and for the fibrous lining of the heart, *viz.,* the endocardium, in short, for muscular and white fibrous tissue.

It is, therefore, but little to be wondered at, that this same rheumatism poison, whatever it may be, shows a strong liking for like histological elements wherever they may be found in the body, and that the eye, with its relatively immense amount of white fibrous tissue, and its small but numerous muscles, should be a frequent sufferer from its ravages.

Hence it is that, judged from the standpoint of the histological pathologist, the eye, a priori, would be selected as a frequent seat for the manifestations of the rheumatic diathesis, and such, indeed, is the fact; many of the most fearfully wrecked and irretrievably lost eyes that we, as ophthalmic surgeons, encounter, have this beginning, this foundation, their etiological factor in rheumatism.

Why is it that these rheumatic inflammations are so very destructive to the integrity of the eye?

Because they attack the framework of the organ, they shake the very keystone of the ocular superstructure, that oft forgotten but very sturdy coat of the eye, *viz.,* the sclerotic.

Once that is destroyed or weakened, what does it matter how good and perfect the other structures of the eye may be? They cannot find support, they have lost their rod and their staff, and they cannot withstand the intra-ocular pressure, they must yield, stretch, and become destroyed, leaving this, the most beautiful product of nature's workshop, a deformed, degenerated, and totally useless, often painful wreck.

*(Continued on Page 718)*

*Presented at the Twenty-seventh Annual Meeting of the Michigan State Medical Society, Flint, May, 1892.

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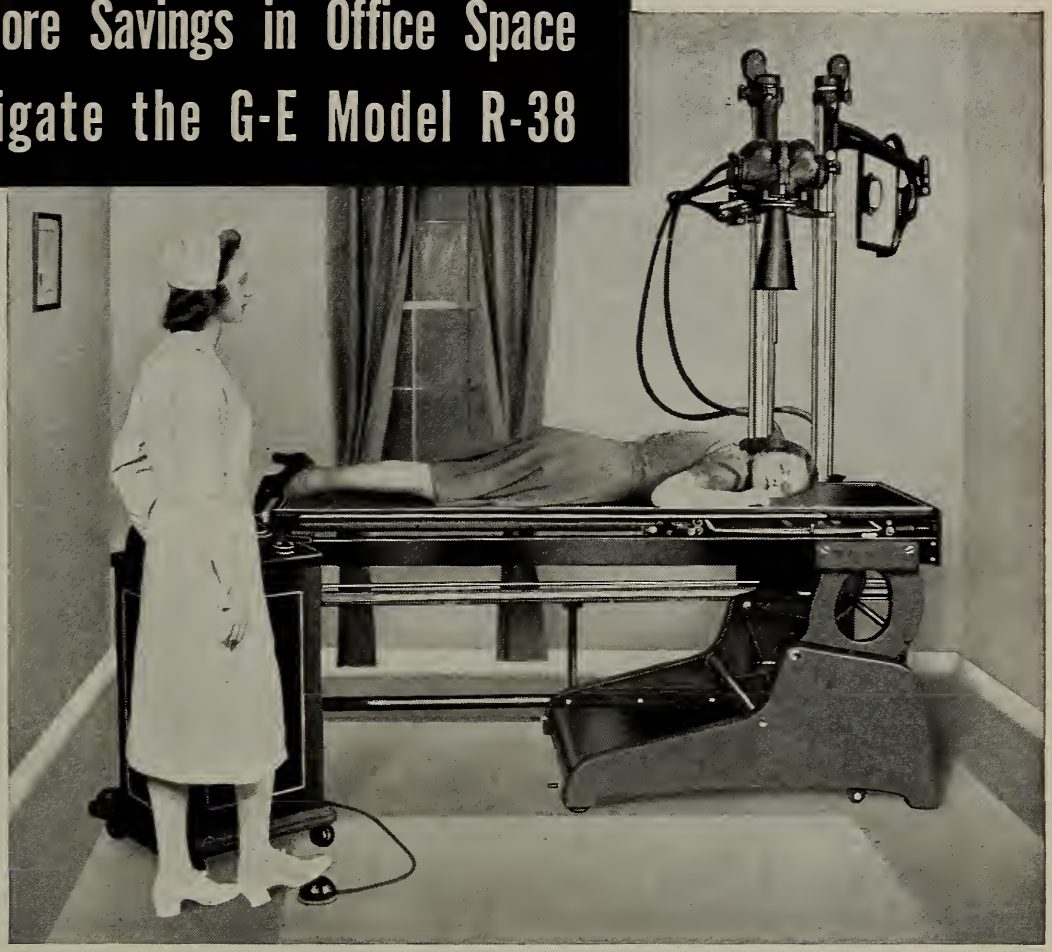

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*(Continued from Page 716)*

Some may, perhaps, think that we are drawing too dark a picture, and that our enemy, rheumatism, does not deserve all these slurs; but look for a moment at the ravages it works in other parts of the body, which are primarily much more fitted to withstand its onslaughts successfully, and then no one will wonder at the fact that this delicate little organ may, must, and does sometimes suffer total demoralization from this disease.

One need see but a single case, such as that of G. W. S., a young man of thirty-three years, who, five years ago, was as vigorous and strong as any one of us here; a man with a happy home and a good business: in short, brilliant prospects, as prospects go.

Five years ago, he had an attack of acute inflammatory rheumatism, which was followed by an attack of some form of inflammation in each eye. This attack was presumably a rheumatic iritis. He unfortunately fell into the hands of men who failed to properly diagnose and treat his ocular inflammation, and allowed complete posterior synechia and occlusion of the pupil to take place; and from that day to this he has never for more than two or three weeks at a time been free from inflammatory ocular trouble of some kind, the rheumatic inflammation gradually extending to all the ocular tissues, closing up his pupils, completely blotting out the fair light of heaven forever, and with its every prospect of a happy domestic and prosperous financial career, from a creature, otherwise eminently fitted for a useful life.

Is not the contemplation of even one such instance as this enough to impress us with the conviction that we should fight this trouble vigorously, early and late, and never allow it to gain the mastery?

It is not my intention today to give you an exhaustive detailed account of all the rheumatic affections to which the eye is liable.

I wish to speak particularly about scleritis, or rheumatic inflammation of the sclerotic coat and the tissue overlaying it (episcleritis).

We will find, upon searching the literature bearing upon the subject that but little is said upon scleritis in the standard ophthalmic books of the day, nor do we find it often referred to in the current periodicals dealing with ophthalmic science.

A patient coming to us suffering from scleritis alone, comes briefly because his eye is inflamed and red, and we will find that any information which we get from him subjectively will be of a negative nature, *viz.:*

1. There is frequently not much, if any, pain.
2. The vision is unimpaired.
3. There is no discharge from the conjunctival sac.
4. There is no gluing of the lids in the morning.
5. There is very little, if any, dread of light.
6. There is very little over-lachrymation.
7. If, however, the inflammation has begun to extend into the deeper structures, the iris, etc., the patient will suffer pain, and should the recti, or oblique muscle, become affected, any movement of the eye necessitating the action of these muscles will be accompanied by pain. So that, subjectively, we gain but little by questioning our patient.

When, however, we come to examine our patient, objectively, a little more light is thrown upon the situation.

1. We find the eyeball decidedly inflamed, the blood vessels much enlarged and the whole eye looking very angry. Now, it is just here that our point of diagnosis comes in: it's the peculiar kind of redness we meet that first arouses our suspicions. The discoloration is of a purple, strangulated, pile-up appearance, and the whole sclera is not, as a rule, involved; that is to say, the inflammation is usually confined to segments of the sclerotic coat. There may be only one segment, or there may be several segments, with fairly healthy sclerotic tissue intervening.
2. In the center of the patch, we will frequently find the tissues piled up into a little bunch of purple, enlarged, distended blood vessels.
3. These patches, are, in a varying degree, tender to the touch.
4. The pupil is responsive to light and accommodation, dilating systematically.

The complications of this disease are the conditions which we most dread. They are:

1. An extension of the inflammation into the iris and deeper structures of the eye, ending in occlusion of the pupil and destruction of the vision.
2. A thinning of the firm sclerotic coat, allow-

*(Continued on Page 720)*

# GIARDIASIS

. . . Although evidence for the pathogenic nature of Giardia lamblia is not conclusive, this microorganism may possibly be the cause of diarrhea, abdominal pain and other symptoms of the clinical picture commonly referred to as giardiasis.

It has recently been demonstrated that Giardia lamblia can be eradicated from the intestinal tract with remarkable promptness by the administration of Atabrine Dihydrochloride.

The usual dose of Atabrine Dihydrochloride is 0.1 Gm. three times daily for five days.

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*(Continued from Page 718)*

ing the intra-ocular pressure to push the coats before it, producing a staphyloma, destroying the symmetry of the eye, and finally very much diminishing or destroying the sense of sight.

The first of these complications is best combated by attention to local, and the second by attention to a vigorous constitutional treatment, and these I will now briefly attempt to outline to you.

The treatment then may be divided into local and constitutional, and just here let me draw your attention as forcibly and emphatically as I may to the fact that it is not in generalizations that we must deal in attacking this malady. We must attend to every little detail and minutia of our treatment, and upon this will largely depend our success or our failure.

*Local Treatment.*—Give the eye as perfect physical rest as possible, and protect it from bright light. Hot antiseptic and slightly astringent fomentations must be frequently applied and long continued, allowing the solution to thoroughly wash out the conjunctival sac, and it should be repeated every three or four hours, each bathing extending over ten or fifteen minutes. Atropine sulphate, hyoscin hydrobromate, either combined or separately, or some other strong, powerful and reliable mydriatic should be used from the first and should be thoroughly continued throughout the whole course of the disease, until all redness is gone.

Upon the thorough and systematic use of a mydriatic I would particularly insist, whether iritis actually exists or not, because by its use we set the eye thoroughly at rest, and effectually prevent the occurrence of one of the dreaded complications of scleritis, *viz.,* iritis. The dusting in upon the inflamed area of calomel and other powder I consider of but little value.

There are writers who recommend the excision of the elevated patches of inflammation, or that they be touched with the glavano, actual, or Pacquelin's cautery. None of these somewhat heroic procedures have, in my opinion, been necessary.

*Constitutional Treatment.*—Looking upon the disease as of a rheumatic nature and origin, our constitutional treatment will consist largely of attention to those details of hygiene and diet which have been found efficacious in the various forms of rheumatism.

The patient should live in a high, dry, well ventilated and well warmed dwelling. He should avoid all exposure to cold and wet. His meals should be taken regularly. He should have systematic out-door exercise. His food should be simple and contain but little meat or alcoholic stimulants, and those partially fermented wines, containing, as they do, the products of incomplete fermentation, should be rigidly eliminated from his dietary.

The fats should be allowed to enter largely into his fare.

Strict and unremitting attention should be given to the various emunctories and to the digestive act, because many of these patients come to us with foul breaths, a loaded tongue, inactive skin, and constipated bowels.

For the bowels, Cascara sagrada or the Carlsbad sprudel salts are of value, and for the better hygiene and physiological action of the skin, I am in the habit of sending my patients three times each week to the Mt. Clemens mineral baths, whereby the skin is kept thoroughly in action.

I might say here, by way of diversion, that in my opinion we physicians and surgeons of Michigan are not fully aware of the powerful therapeutic agent we have so closely at hand in these mineral baths. I have used them in my work with happy results, and hope to continue to do so.

As to internal medication, we have our sheet anchor in sodium salicylate. It is a drug which varies much in its therapeutic value, according to the manner of its administration and the purity and freshness of the preparation.

I invariably prescribe Squibb's soda salicylate, and always in solution, if it be possible for my patient to take it so; if not, in capsules.

Fifteen grains are given every two hours till the full physiological effects of the drug are obtained, *viz.:* profuse perspiration and tinnitus aurium, and then it is continued in this dose, as near as may be, as long as there is any redness about the eye.

The administration of the drug should be continuous, during the night as well as during the day, otherwise the continuous physiological effect of the drug will be interrupted, it being very quickly eliminated. During convalescence, an alkaline and bitter tonic will be of value.

An important feature of the after-treatment of all of these cases is the correction of all muscular anomalies and errors of refraction, thus putting the eye in as restful a condition as possible, when work is again resumed.

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...because there is no lack in Biolac, except for vitamin C. Biolac feedings provide amply for all other nutritional requirements of the normal young infant, and no additional formula ingredients or supplements are necessary. It's an improved evaporated-type infant food with breast-like nutritional and digestional advantages. It is a complete formula, replete with nutritional values. Biolac is prepared from whole milk, skim milk, lactose, vitamin $B_1$, concentrates of vitamins A and D from cod liver oil, and ferric citrate.

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## SPECIAL WAR BULLETIN

All doctors of medicine in Michigan under forty-five years of age are requested to make application for a commission immediately, in order to protect them by clearing their record with Procurement and Assignment Service, the Medical Department Officer Recruiting Board and the Selective Service System.

Dr. P. R. Urmston, Bay City, Special Consultant to the War Manpower Commission, under which Procurement and Assignment Service operates, has ruled that before an official determination of availability of a physician can be made, the physician must have made formal application for a commission and take the final type physical examination at an Army hospital. All physicians who are essential will be so certified then to the Medical Recruiting Board and cannot be commissioned. Physicians who do not pass the physical requirements of the Army cannot be commissioned. In each case State Selective Service, as well as the local boards, are so notified. Every doctor of medicine, *whether or not he feels he is essential, whether or not he feels he can pass the physical requirements,* should make prompt application for a commission in order that his record can be cleared.

## MEDICAL OFFICERS NEEDED

The Medical Officer Recruiting Board received the following message August 6, 1942, from the Office of The Surgeon General:

"Medical Officers are urgently needed to provide medical care for the rapidly expanding Army. The call to duty of 3,500 Medical Officers per month for the ground forces, and 1,000 per month for the Air Forces, for the remainder of this year, will be necessary to meet the requirements of the Army in the war effort.

"Physicians appointed in the Medical Corps, Army of the United States, will be given a period of training and subsequently be assigned to duties appropriate to their professional qualifications.

"Applications for appointment in the Medical Corps from physicians who have been inducted or who have received orders from Selective Service to report for induction, will not be accepted by Medical Officer Recruiting Boards. After the induction of a physician his application must be forwarded through military channels.

"Because of diversified duties and necessary mobility, the predominate need of the Army Air Forces is for physicians under thirty-seven years of age who are qualified for full military duty.

"Applicants for duty with the Army Air Forces will receive the same initial rank as those being appointed to serve in any other branch of the Army in accordance with published standards now being used by the Recruiting Boards. The Recruiting Boards will process applicants for duty with the Air Forces using their regular established procedure and forward their completed papers directly to The Air Surgeon."

The results in Michigan of the accelerated recruitment of physicians as of August 18, are as follows:

| | |
|---|---|
| (a) Commissioned through the Board | 423 |
| (b) Physically rejected | 239 |
| (c) Declared essential by Procurement and Assignment Service | 109 |
| (d) Applications being processed | 354 |
| (e) Total applications received | 1,125 |

Of every 100 applications received, 54 per cent are commissioned, 31 per cent physically disqualified, and 15 per cent declared essential.

All physicians under thirty-seven have been completely canvassed. All but 273 of this age group have applied for commissions. Of this number, 242 have been reported to Selective Service for necessary action.

As of August 18, there were 872 Michigan physicians in the Army. This is about 18 per cent of all Michigan physicians. Another 700 physicians will be needed this year from Michigan.

Of the 1,125 applications received, only thirty-three were forwarded to The Surgeon General for consideration, for the grade of Major. To qualify for this rank (Major) it is necessary that the applicant be (a) certified as a specialist by an American Specialty Board, or be a Fellow of an American College, and (b) *have such additional training and experience* as, in the opinion of the Surgeon General, qualifies the applicant to serve as Chief of Service or Executive Officer in a large military hospital. Very few specialists have the second qualification.

The Medical Recruiting Board now consists of Lieut. Col. P. R. Priestley, Infantry, representative of the Adjutant General, Lieut. Col. John G. Slevin, M.C., representative of the Surgeon General, Major Walter R. Rousar, D.C., representative of the Assistant Surgeon General for the Dental Corps, Captain John R. Lukas, M.C., representative of the Air Surgeon, and Captain Perry V. Wagley, M.C., Adjutant of the Board.

The only office maintained by the Board is at 320 Federal Building, Detroit. The Fort Custer branch office has been closed.

All Michigan physicians in the age group thirty-seven to forty-five have been canvassed once by the Board except in Wayne, Macomb, Oakland, Genesee, Monroe, St. Clair and Washtenaw Counties. Those in this group of coun-

*(Continued on Page 724)*

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| NIACIN AMIDE . . . . . 6.0 mgm. | PHOSPHORUS 145.0 mgm. |
| PANTOTHENIC ACID . . 2.8 mgm. | COPPER . . . . 0.3 mgm. |
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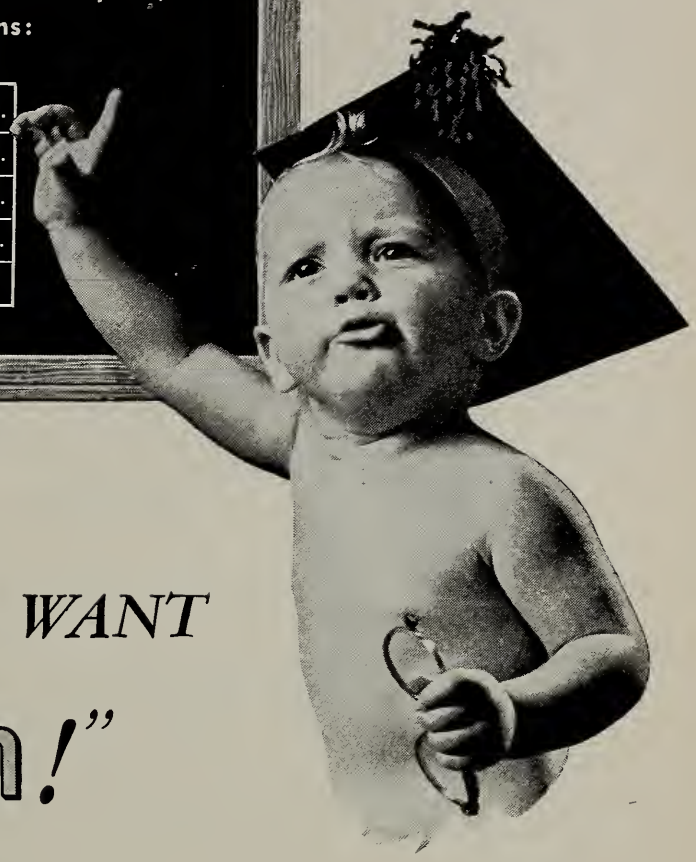

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The ingredients of Cerevim are blended uniformly in a precooking process. Cerevim is an excellent source of the vitamin B complex and iron. It is a good source of calcium. Cerevim contains 19.4% protein.

The chemical components and the vitamin content of CEREVIM are checked regularly at the Lederle Research Laboratories, where biological chemists collaborate in new investigations designed to keep pace with developments in the field of nutrition.

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*As recommended by Committee on Foods & Nutrition, National Research Council, May, 1941.

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*(Continued from Page 722)*
ties will be canvassed prior to September 15. It is expected that all physicians under forty-five will have complied with the request of Procurement and Assignment Service of the War Manpower Commission to make application for commission prior to October 1, 1942.

John G. Slevin
Lieut. Colonel, M.C.
Surgeon of the Board.

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## CONFERENCE ON VENEREAL DISEASE CONTROL NEEDS IN WARTIME

Venereal disease and America's war effort will be discussed by high-ranking medical officers of the War and the Navy Departments, prominent physicians, health officers and others at a Conference in Hot Springs National Park, Arkansas, October 21-24, 1942. Headquarters will be at the Arlington Hotel.

The Conference will be held under the auspices of the United States Public Health Service in conjunction with the Eighth Annual Meeting of the American Neisserian Medical Society. Surgeon General Thomas Parran will preside. State and local health officers, venereal disease control officers, practicing physicians, and all others engaged in venereal disease control activities are urged to attend.

Subjects for discussion will include venereal disease control measures influencing the war effort, epidemiology of syphilis and gonorrhea—1942, wartime venereal disease control education, research influencing the wartime venereal disease control program, and techniques of venereal disease education.

Governmental, professional and health organizations to be represented at the Conference include: the War Department, the Navy Department, the Social Protection Section of the Office of Defense Health and Welfare Services, the American Medical Association, the American Neisserian Medical Society, the American Social Hygiene Association, State and local health departments, and the United States Public Health Service.

---

Return of the patient with arrested tuberculosis to his safe and full economic efficiency is the final objective of treatment. This aspect of the care of the tuberculous, however, has received far too little thoughtful study. Fifty per cent of patients discharged from sanatoria still die of tuberculosis within five years. This social waste must be stopped.

# MICHIGAN MEDICAL SERVICE

### Reënrollment at Increased Rate

Reënrollment of subscriber groups at the increased rate of 60 to 90 cents for the individual subscriber; $1.60 for the husband and wife; and $2.25 for the family is well under way. Those groups whose reënrollment periods have occurred accepted the increased rates with additional enrollment beyond that normally expected.

Transfer of all groups to the higher rate will be completed during the next six months and will mean approximately 25 per cent increase in income, which will stabilize payments to physicians at 100 per cent of the Schedule of Benefits and permit the accumulation of reserves.

The transfer of the large Chrysler group to the increased rates will be effected by October 1, 1942.

### Modifications Can Now Be Effected

A special Study Committee was appointed by the Board of Directors of Michigan Medical Service to develop modifications in the plan of operation which have been revealed as necessary in light of the twenty-nine months of operation. The time of transfer of groups to the new rate structure is an appropriate time for modifications in the certificates to be issued. The entire medical profession will be contacted for recommendations and suggestions relative to these modifications, which will be incorporated in the new certificate to be issued to subscribers.

### President Carstens Leaves for Army

Henry R. Carstens, M.D., President and Medical Director of Michigan Medical Service, has resigned to fulfill his duties as Colonel in charge of the Seventeenth General Hospital. The great service Dr. Carstens has rendered the medical profession and the public of Michigan in his devotion to the cause of Michigan Medical Service is appreciated. His leadership and work will be missed. Very sincere best wishes are extended to Dr. Carstens in the larger work in which he is now engaged.

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### COUNCIL AND COMMITTEE MEETINGS

1. Sunday, August 2, 1942—Syphilis Control Committee—Hotel Olds, Lansing—5 p.m.
2. Wednesday, August 12, 1942—Executive Committee of The Council—Point Lookout—2 p.m.
3. Wednesday, August 19, 1942—Discussion Conference Leaders—Michigan Union, Ann Arbor—3 p.m.
4. Wednesday, August 19, 1942—Medical Preparedness Committee—Michigan Union, Ann Arbor—5 p.m.

Several phases of a *grand mal* epileptic seizure schematically pictured in the rare book, "Les Demoniaques Dans L'Art," by J. M. Charcot and Paul Richer, published in 1887.

*"has practically remade the lives of some epileptic patients."*[1]

Dilantin Sodium, an anticonvulsant with relatively little hypnotic effect, has become firmly and deservedly entrenched in the treatment of epilepsy. It is the "drug of choice"[2] for most patients subject to seizures, especially effective for controlling psychomotor attacks which are little influenced by bromides or phenobarbital.[1]

Kapseals Dilantin+ Sodium (phenytoin sodium) have indeed opened the way to a new life for many epileptics . . . a more normal and happier life . . . with seizures usually decreasing in number and severity, and sometimes ceasing entirely.

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1. McEachern, D.: *Canadian Med. Ass'n. J.*, 45:106, 1941.
2. Lennox, W. G.: *Med. Ann. Dist. Col.*, 10:461, 1941.

*Detailed literature upon request.*

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# FELLOWS AND ASSOCIATE FELLOWS IN POSTGRADUATE MEDICAL EDUCATION

The State Society congratulates the following physicians on their successful completion of the formal continuation work arranged by the MSMS Committee on Postgraduate Medical Education. Certificates of award will be mailed to all Fellows and Associate Fellows shortly after the State Society Convention in Grand Rapids.

The following Doctors of Medicine are eligible for certificates of Fellowship in Postgraduate Education, Michigan State Medical Society for 1942:

Raphael W. Albi, Lake City; Napier S. Aldrich, Coldwater; Cornelius A. Alexander, Kalamazoo.

Clarence Baker, Detroit; Joseph A. Bakst, Detroit; Frederick W. Bald, Flint; Lawrence R. Banner, Kalamazoo; James W. Barnebee, Kalamazoo; Samuel E. Barnhart, Battle Creek; F. Elizabeth Barrett, Kalamazoo; William E. Barstow, St. Louis; Franklin W. Baske, Flint; John C. S. Battley, Port Huron; Ernest W. Bauer, Hazel Park; Myron G. Becker, Edmore; Irvin J. Beebe, Morenci; William C. Beets, Grand Rapids; Gerald W. Behan, Galesburg; Herbert M. Best, Lapeer; Jeanette M. Brigham, Howell; Harry B. Britton, Ypsilanti; Frederic W. Brown, Watervliet; George M. Brown, Bay City; Kathryn M. Bryan, Manistee; Melvin J. Budge, Ithaca; Guy R. Bullen, Jackson; Earl P. Bunce, Trufant; Wesley M. Burling, Grand Rapids; Dean C. Burns, Petoskey; Clarence E. Burt, Ithaca; Aaron C. Button, Saginaw.

Lloyd A. Campbell, Saginaw; Hector M. Chabut, Jackson; Myrton S. Chambers, Flint; Clarence D. Chapin, Columbiaville; William S. Chapin, Muskegon Heights; Horace R. Cobb, Kalamazoo; Sol G. Cohan, Muskegon; John E. Cooper, Battle Creek; Jay C. Corsaut, Mason; Andre J. Cortopassi, Saginaw; Floyd L. Covert, Gaines; Ferdinand Cox, Jackson; Harold D. Crane, Grand Rapids; Robert H. Criswell, Bay City.

Peter H. Darpin, Detroit; Ray E. Dean, Three Rivers; Guy W. DeBoer, Grand Rapids; E. Ellsworth Dell, Sand Lake; Nicholas Del Zingro, Davison; Richard DeMol, Grand Rapids; Isla G. DePree, Grand Rapids; Elvia C. Derickson, Burlington; John S. DeTar, Milan; Willard W. Dickerson, Wahjamega; Willis L. Dixon, Grand Rapids.

Shakir E. Far, Quincy; Lynn A. Ferguson, Grand Rapids; Louis G. Ferrand, Rockford; Hugh S. Foley, Dearborn; L. Fernald Foster, Bay City; Earl H. Foust, Lansing; Gilbert E. Frank, Harbor Springs; Harvey T. Fuller, Mt. Morris; Rodolphus W. Fuller, Crystal.

Margery J. Gilfillan, Battle Creek; Hymen M. Golden, Flint; Cletus J. Golinvaux, Monroe; William A. Grant, Milford; Burt F. Green, Hillsdale; Sherman Gregg, Kalamazoo; John F. Gruber, Cadillac; Andros Gulde, Chelsea; George L. Gundry, Grand Blanc.

Ernest C. Hansen, Manistee; George C. Hardie, Jackson; Don V. Hargrave, Eaton Rapids; William J. Harrigan, Mt. Pleasant; Dean W. Hart, St. Johns; Lloyd C. Harvie, Saginaw; Wilfrid Haughey, Battle Creek; Charles L. Hess, Bay City; Alton D. Hobbs, St. Louis; Aben Hoekman, Constantine; Marinus A. Hoffs, Lake Odessa; Fred J. Hohn, Saginaw; Benton A. Holm, Cadillac; William B. Hornsby, Clinton; James Houston, Swartz Creek; Robert R. Howlett, Caro.

Thomas C. Irwin, Grand Rapids.

Robert F. T. Jaenichen, Saginaw; Walter J. Jaracz, Grand Rapids; Otto F. Jens, Essexville; Philip R. Johnson, Mt. Pleasant.

Roland E. Kalmbach, Lansing; Joseph B. Kass, Detroit; Gottlieb H. Kaven, Unionville; Rockwell M. Kempton, Saginaw; Howard J. Kerr, Muskegon; George I. Keskey, Marquette; Mana Kessler, Bay City; Saba Kessler, Bay City; John G. Kingma, Midland Park, N. J.; Paul A. Koestner, Kalamazoo; Henry P. Kooistra, Grand Rapids; John Kremer, Grand Rapids; Christian G. Krupp, Grand Rapids; Harry B. Kyselka, Traverse City.

Derk B. Lanting, Grand Rapids; William M. LeFevre, Muskegon; Charles E. Lemen, Traverse City; Paul R. Lieberthal, Ironwood; Harry Lieffers, Grand Rapids; William Littlejohn, Bridgman; Clement E. Lockwood, Holly; George W. Logan, Flushing; Oliver W. Lohr, Saginaw; Martha L. Longstreet, Saginaw; Robert T. Lossman, Traverse City; Lewis C. Ludlum, Lansing.

John J. McCann, Ionia; John J. McDermott, St. Joseph; William E. McGarvey, Jackson; Joseph L. McKenna, Grand Rapids; Alexander R. McKinney, Saginaw; Joshua A. McLandress, Saginaw; Edwin A. McManus, Mesick; L. Douglas McRae, Gagetown.

James G. Malone, Kalamazoo; John P. Marsh, Grand Rapids; Elihu A. Martindale, Hillsdale; Pedro O. Martinez, Detroit; Elta Mason, Flint; Wesley M. Mast, Petoskey; John C. Maxwell, Paw Paw; Frederick C. Mayne, Cheboygan; Jason B. Meads, Jackson; Henry G. Merz, Lapeer; Harry C. Metzger, Detroit; Henry J. Meyer, Saginaw; Hugh R. Meyer, Lansing; George F. Moore, Mt. Clemens; Gregory P. Moore, Cadillac; Hugh R. Moore, Newaygo; Vernor M. Moore, Grand Rapids; Edgar T. Morris, Nashville; Ray S. Morrish, Flint; Edward C. Mosier, Otisville; Hugh F. Mullenmeister, Battle Creek.

John W. Nagle, Wyandotte; Algot R. Nelson, Grand Rapids; William W. Norris, Portland.

Ellery A. Oakes, Manistee; Leo W. Olechowski; Hamtramck; Frank W. Ostrander, Freeland.

Emory M. Paine, Jr., Grand Ledge; Carl Pangerl, Muskegon Heights; Wilfred P. Patterson, Grand Rapids; Charles H. Peabody, Lake Odessa; William L. Peters, Morenci; Lunette I. Powers, Muskegon; Oliver C. Pratz, Flint; Alton E. Pullon, Kalamazoo.

Frank E. Reeder, Flint; John W. Rice, Sturgis; Gerald H. Rigterink, Kalamazoo; William L. Rodgers, Grand Rapids; Paul Roth, Battle Creek; Richard S. Ryan, Saginaw.

Gilbert B. Saltonstall, Charlevoix; John T. Sample, Saginaw; Waldo A. Schaefer, Port Huron; Cortlandt W. Schepeler, Brooklyn; Peter A. Scheurer, Manchester; Thomas Schrier, Comstock; Bertha L. Selmon, Battle Creek; Milton Shaw, Lansing; Laurence E. Showalter, Cadillac; Walter K. Slack, Saginaw; Edward F. Sladek, Traverse City; Blythe R. Sleeman, Linden; Edwin M. Smith, Grand Rapids; R. Earle Smith, Grand Rapids; Wallace J. Smith, Cadillac; Harold I. Sparling, Northville; Mansfield L. Spears, Pontiac; Clayton M. Spencer, Scottville; Ulysses G. Spohn, Fairgrove; Stanley A. Stealy, Grayling; Abraham A. Steiner, Lansing; Floyd H. Steinman, Flint; Thomas O. Stewart, Detroit; Olin H. Stuck, Otsego.

*(Continued on Page 728)*

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Stuart Yntema, Saginaw.

Irwin H. Zielke, Traverse City; Israel J. Zimmerman, Detroit; Joseph G. Zimmerman, Traverse City.

The following physicians are eligible for certificate of Associate Fellowship, 1942:

Saul Appel, Jackson.

James Baird, Flint; Charles H. Baker, Bay City; Ernest G. Bellinger, Lansing; Joseph E. Berry, Detroit; Joseph Bleier, Detroit; Arthur W. Boddie, Detroit; Ellis S. J. Boland, Suttons Bay; Walter H. Boughner, Algonac; William H. Brock, Saginaw; Kneale M. Brownson, Traverse City; Nathan Brooks, Detroit; Oliver R. Buesing, Grand Rapids; Frank L. Bull, Sparta; David H. Burley, Almont; Francis J. Busch, Saginaw.

Albert L. Callery, Port Huron; Harold W. Carlson, Detroit; Leo G. Christian, Lansing; Archer A. Claytor, Saginaw; Robert W. Claytor, Grand Rapids; Glendon T. Clements, Ann Arbor; Wilfrid Cowan, Detroit; Douglas R. Coyne, Detroit; Frank O. Connolly, Detroit; Kenneth L. Crawford, Kalamazoo; Joseph M. Croman, Jr., Mt. Clemens; Joseph M. Croman, Sr., Mt. Clemens; James H. Curts, Saginaw.

Thomas E. DeGurse, Marine City; Cuthbert E. DeMay, Jackson; Clement F. Derezinski, Muskegon; Theodore R. Deur, Grant; Victor Droock, Detroit; Vanny H. Dumond, Bay City; Forest M. Dunn, Lansing.

Clarence H. Eisman, Detroit; Joseph M. Erman, Detroit.

Stephen Fairbanks, Albion; Sidney Franklin, Newberry; Carl H. Frye, Ann Arbor; Ralph O. Fuerbringer, Saginaw.

David P. Gage, Saginaw; Nicholas Galdonyi, Detroit; Edwin C. Ganzhorn, Ann Arbor; Ledru O. Geib, Detroit; Ormond D. Geib, Rochester; Joseph P. Gilding, Vicksburg; Matthew J. Gill, Dearborn; Audrey Glenn, Ft. Wayne, Indiana; William S. Gonne, Detroit; Frank A. Grawn, Traverse City; Abilio S. Guimaraes, Dearborn.

Carl W. Hammer, Oxford; Marvin R. Hannum, Milan; Periam B. Hardy, Tecumseh; William Hipp, Detroit; Stephen Hollander, Grand Rapids; William T. Hyslop, Traverse City; Nevin Huene, Traverse City.

William D. Irwin, Kalamazoo.

Jerome T. Jerome, Traverse City.

William J. Kane, Mt. Clemens; Lewis D. Kaufman, Flint; Raymond J. Kokowicz, Detroit; Francis S. Kucmierz, Detroit.

Warner D. Lane, Romeo; Philip L. Lathrop, Detroit; Robert J. Lentz, Traverse City; John D. Littig, Kalamazoo; Albert F. Litzenburger, Boyne City; Salvatore Lojacono, Jackson.

Charlton A. MacPherson, St. Clair; Joseph A. Macksood, Flint; James E. Mahan, Allegan; Henry L. Meck, Dundee; Jack L. Miller, Jackson; Gertrude F. Mitchell, Detroit.

William E. Nesbitt, Alpena; Ruth Gertrude Nystrom, Kalamazoo.

Leo W. Olechowski, Hamtramck; Grant L. Otis, Jackson.

Richard C. Peckham, Gaylord.

Morris Rand, Detroit; Torrance Reed, Grand Rapids; Adolph T. Rehn, Newberry; Rufus H. Reitzel, Mt. Clemens; John R. Rodger, Bellaire; C. Howard Ross, Ann Arbor; Milton M. Rozan, Lansing; Le Roy W. Rubright, Detroit.

Kenneth R. Sandy, Flint; Charles J. Scavarda, Flint; Harley A. Sears, Kalamazoo; Pasche P. Silvert, Vestaburg; Isidore J. Siwka, Detroit; Raymond N. Slate, Detroit; Benjamin R. Springborn, Detroit; Arthur H. Steele, Paw Paw; Thomas O. Stewart, Detroit; Russell H. Strange, Mt. Pleasant; Palmer E. Sutton, Royal Oak.

Nelson M. Taylor, Grosse Pointe; Earl A. Thayer, Jackson.

Russell W. Ullrich, Mt. Clemens; William K. Usher, Detroit.

Verne L. Van Duzen, Belding; Arthur Van Solkema, Grandville.

Harry L. Weitz, Traverse City; Bernard Weston, Detroit; Russell F. Weyher, Detroit; Alec Whitley, St. Clair Shores; Maurice M. Wilde, Warren; D. Bruce Wiley, Utica; Frances L. Willoughby, Traverse City; Harry A. Wilson, Lansing; William E. Woods, Detroit.

---

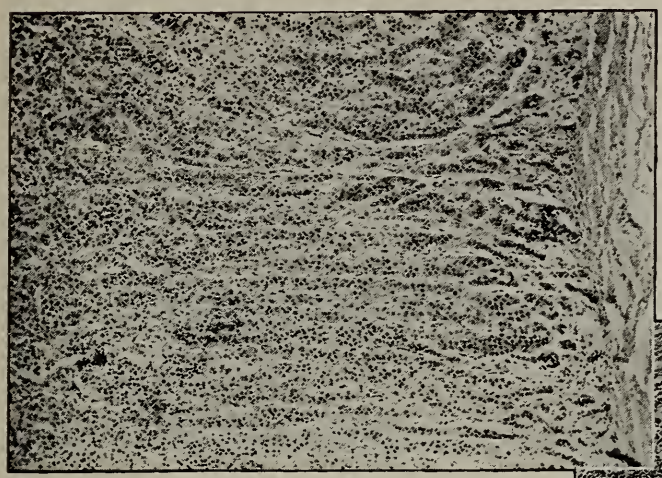
**LEADING THE HORSE TO WATER**

Suppose the doctor timidly suggests that some of the "inadequacy of medical care" is due to the fact that, occasionally, people just won't avail themselves of free medical care even when it is offered. The answer would be a snort of indignation. "A sick person refuse free medical care? Nonsense."

But it is no nonsense. The trouble is that this is hard to prove. Yet a recent survey of diabetic and endocrine clinics at Stanford University, where medical service is free, demonstrated that 45 per cent of the patients failed to keep one or more of their clinic appointments. And we all know how the New Jersey and municipal Boards of Health have to wield the big stick to persuade a certain proportion of venereal disease patients to receive medical care regularly.

The point seems to be that the *need* for medical care is not the same as the *demand* for it. We doctors often talk at cross-purposes with the socially-minded reformers who want to broaden the distribution of medical care. They select figures which reflect the demand for care, we point to evidences of fulfillment of the need. They say: umpty-ump per cent of the people have bad tonsils, therefore we need a new method of distributing tonsillectomies. We say that anybody who needs a tonsillectomy and can't afford to pay for one, can get it free. And so it descends to the level of a name-calling contest, when the first requisite should be a good dictionary and an agreement on definitions.—*Journal, Medical Society of New Jersey,* August, 1941.

# ADRENAL CORTICAL HORMONES ESSENTIAL TO LIFE



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Sterile Solution Adrenal Cortex Extract (Upjohn) is of value in cases of Addison's disease or of adrenal cortex insufficiency, and in surgical procedures involving the adrenal gland, such as removal of cortical tumors, as a prophylactic measure to prevent the development of symptoms of adrenal cortex insufficiency.

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## FACTORS IN DEFICIENCY DISEASE

In the present state of knowledge of deficiency disease it is hazardous to be dogmatic in the interpretation of the effects produced by the administration of a single pure vitamin. Something is known of the relief of certain syndromes by the administration of vitamin A, a few members of the "B group", ascorbic acid, vitamin D and vitamin K. We are still ignorant of the influence of lack of one vitamin on the physiologic functions of others and of the synergistic activity of the entire group of essential nutritive substances. It is probable that "chain reactions" requiring the biochemical functions of many vitamins are of prime importance in normal metabolic processes. This hypothesis applies particularly to the various members of the "B group" but may serve to explain certain observations which indicate that the utilization of vitamin A depends on adequate supplies of riboflavin and ascorbic acid. There is yet no symptomatology attributable to lack of pyridoxine, pantothenic acid, biotin or the unisolated factors in liver. Choline, inositol and/or lipocaic have been shown to have important functions of experimental animals but one can only speculate upon their possible relation to various phenomena of human avitaminosis.—V. P. Sydenstricker, M.D., Augusta, Georgia. (See page 737.)

## THERAPEUTIC EFFECTS OF VITAMIN B FACTORS IN DERMATOLOGY

The various factors of vitamin B are of more than ordinary interest to the dermatologist. Nicotinic acid is virtually a specific for pellagra and riboflavin cures cheilosis, erosions around the eyes and "sharkskin" nose. Pantothenic acid may prove of value in lessening graying of the hair. Vitamin $B_6$ (pyridoxine) shows promise of being valuable in the treatment of seborrheic eczema. It is an important ingredient of liver extract.—Carroll S. Wright, M.D., Philadelphia (See page 744.)

## THE CLINICAL USE OF DIURETICS

Edema is the result of an imbalance of the following factors: (1) the filtration pressure, (2) serum colloid osmotic pressure, (3) the presence of the interstitial fluid (tissue tone), (4) the colloid osmotic pressure of the interstitial fluid, and (5) the lymph flow. The successful use of diuretics must be aimed at the correction of this imbalance. General measures include bed rest, adequate diet as low as possible in salt, but the restriction of fluids is not usually necessary. Diuretics can be classed as: (1) those that increase the serum colloid osmotic pressure (sucrose, glucose, blood, serum, acacia); (2) those that increase the volume of glomerular filtrate (digitalis is heart failure and xanthines); (3) those that decrease absorption of glomerular filtrate (acid salts, urea, mercurials). With diuresis induced by acid salts or mercurials there is a decrease in the plasma volume, a decrease in the venous pressure and a rise in the serum proteins.—Richard H. Lyons, M.D., Ann Arbor and Samuel D. Jacobson, M.D., Eloise, Michigan. (See page 749.)

## THE DIFFERENTIAL DIAGNOSIS OF BENIGN AND MALIGNANT ULCERATING GASTRIC LESIONS

Early accurate differentiation of benign and malignant gastric ulcerations is important in reducing mortality in gastric carcinoma. Any persistent upper gastro-intestinal complaint is probably an indication for roentgenologic or gastroscopic examination or both.

The differentiation of benign and malignant gastric ulceration can not depend on history, physical examination or routine laboratory procedures. Gastric ulceration accompanied by persistent achlorhydria must be treated as malignant; when accompanied by persistent occult blood in stools treatment must be strongly suspicious of malignancy. Single roentgenologic or gastroscopic examinations are sometimes conclusive, but in most patients differentiation depends on follow up.

Follow up of gastric ulcer means strict medical treatment accurately controlled with reëxamination by the roentgenologist or gastroscopist or both. A majority of malignant gastric ulcerations show symptomatic improvement on treatment, some show partial x-ray healing, other cases may show complete x-ray healing. Such healing is temporary. Before a gastric ulceration can be called benign, either x-ray or gastroscopy or both must demonstrate complete and sustained healing.—H. M. Pollard, M.D., and W. C. Scott, M.D., Ann Arbor, Michigan. (See page 754.)

Civilian physicians need feel no chagrin when they see their colleagues in uniform. They can serve their country with the same high patriotism and with more lasting benefit to its health if they will solemnly agree to press relentlessly and with reborn ardor the fight along the home front for the conquest of tuberculosis.—Kendall Emerson, M.D.

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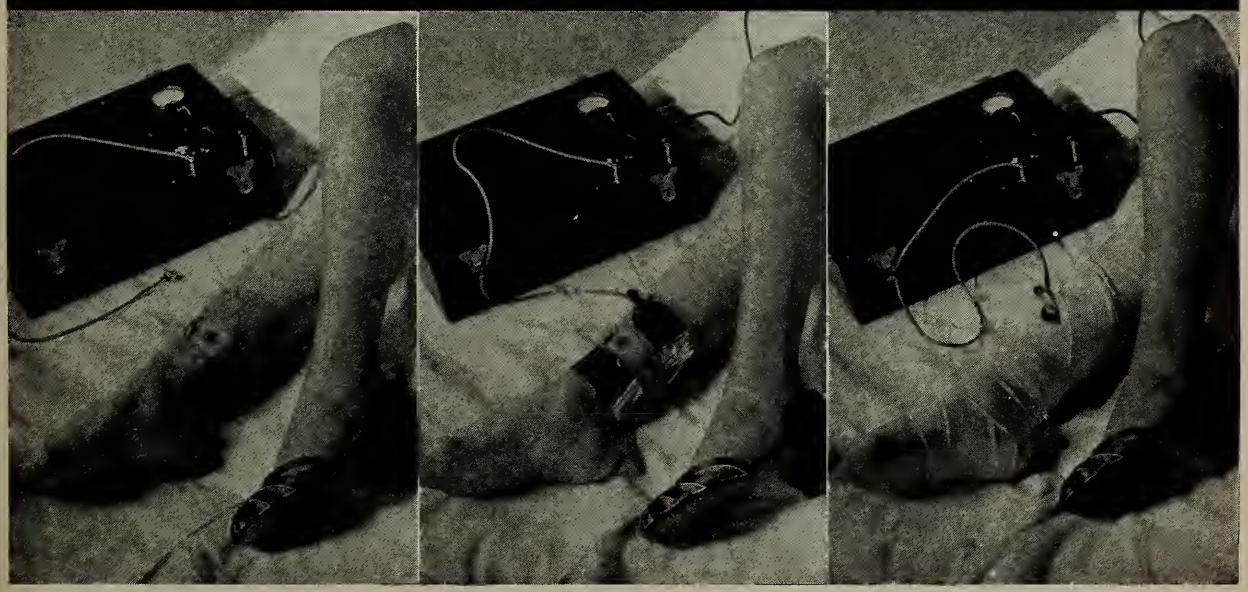

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## TUBERCULOSIS IN REJECTED SELECTEES

The Departments of Health and sanatoria throughout the state have for approximately one year been active in following up men rejected by Selected Service because of tuberculosis.

In the beginning the follow-up of these patients was frequently unsatisfactory because of the delay in getting the reports from Selective Service. This, however, has been corrected and during the last few weeks the radiographs for all men rejected are sent to this office within two weeks of the date the x-ray is taken. These radiographs are interpreted and classified into such groups as primary, minimal, moderately advanced, active or inactive, et cetera. This interpretation is sent out in a form letter to each department of health, asking them to get in touch with the individual and if it is a new case to arrange for such studies as may be necessary to determine the need for sanatorium care, or periodic reëxaminations. At the same time the cases are being arranged according to counties and the sanatorium serving these various counties is asked to check their files for information on these names. Prior to this the names are checked with the hospital and case reports on file in the Michigan Department of Health.

Wayne County has established its own system for follow-up of these rejectees. For the rest of the state, we wish to report that as of August 4, 1942, nine hundred forty-eight names of rejectees were on file in this office. Of this number, three hundred and eight had been previously reported to the Michigan Department of Health.

The six hundred forty new cases, rejected by Selective Service, were classified following reexamination, as follows:

| | |
|---|---|
| Hospitalized | 27 |
| Hospitalization now pending | 20 |
| Pulmonary tuberculosis, inactive, not requiring sanatorium care | 159 |
| Non-tuberculous, pulmonary disease | 79 |
| Unable to locate | 20 |
| Moved out of state | 33 |
| Recalcitrant | 10 |
| Pending (reëxamination incomplete) | 286 |
| Dead | 6 |

The importance of making prompt contact with these rejectees cannot be emphasized too strongly. Inasmuch, as a large number of these cases have minimal pulmonary tuberculosis there is some reason to believe that a certain number of them will be classified as "inactive" for the reason that some general practitioners and radiologists, not in close association with tuberculosis work and even a small number of our sanatorium men are inclined to presume that a majority of minimal infiltrations are benign. In this connection a timely article, "Features of the Early Pulmonary Infiltration," by J. Burns Amberson, Jr., well known authority in the field of tuberculosis, writing in the June number of *The American Review of Tuberculosis* should be carefully read by every physician responsible for any part of this work.

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## MIDSUMMER CLINIC

The annual Midsummer Clinic which the Grand Traverse-Leelanau-Benzie County Medical Society has held annually for doctors of the northern counties of the lower peninsula, was held in Traverse City on July 30 and 31. This meeting, which takes the form of a two-day operative and didactic clinic, has been held in Traverse City for many years.

Dr. M. Osterlin, as chairman, introduced the following members of the University of Michigan Medical School Faculty, who presented the program on Thursday:

Office Surgery, Wrongfully Called Minor Surgery—Dr. Coller

Digestive Disturbances in Infants and Children—Dr. McKhann

Office Orthopedics—Dr. Badgley

Recent Advances in Surgery of the Lungs—Dr. Haight

Troublesome Problems in Circulatory Diseases—Dr. Barker.

Dr. H. VandenBerg of Grand Rapids conducted a session of the Tumor Clinic which is regularly held each week at a Thursday noonday luncheon meeting. Several interesting cases were presented.

The talks were very well received by the eighty-six doctors who attended from the various counties in the northern half of the lower peninsula.

In the evening the Grand Traverse-Leelanau-Benzie County Society was host to cocktails and at a banquet which followed at the Traverse City Golf and Country Club. Following the banquet an interesting program was presented with Dr. E. F. Sladek (Councillor of the 9th District), as chairman, who introduced Dr. F. A. Coller and Dr. James D. Bruce of the University of Michigan Medical School Graduate Department.

An interesting feature of the after-dinner program was the reading of the minutes of the first meeting of the Grand Traverse-Leelanau-Benzie County Medical Society, with a roll call of the original members of this group. Of this group only one member is living today, Dr. H. B. Gar-

*(Continued on Page 734)*

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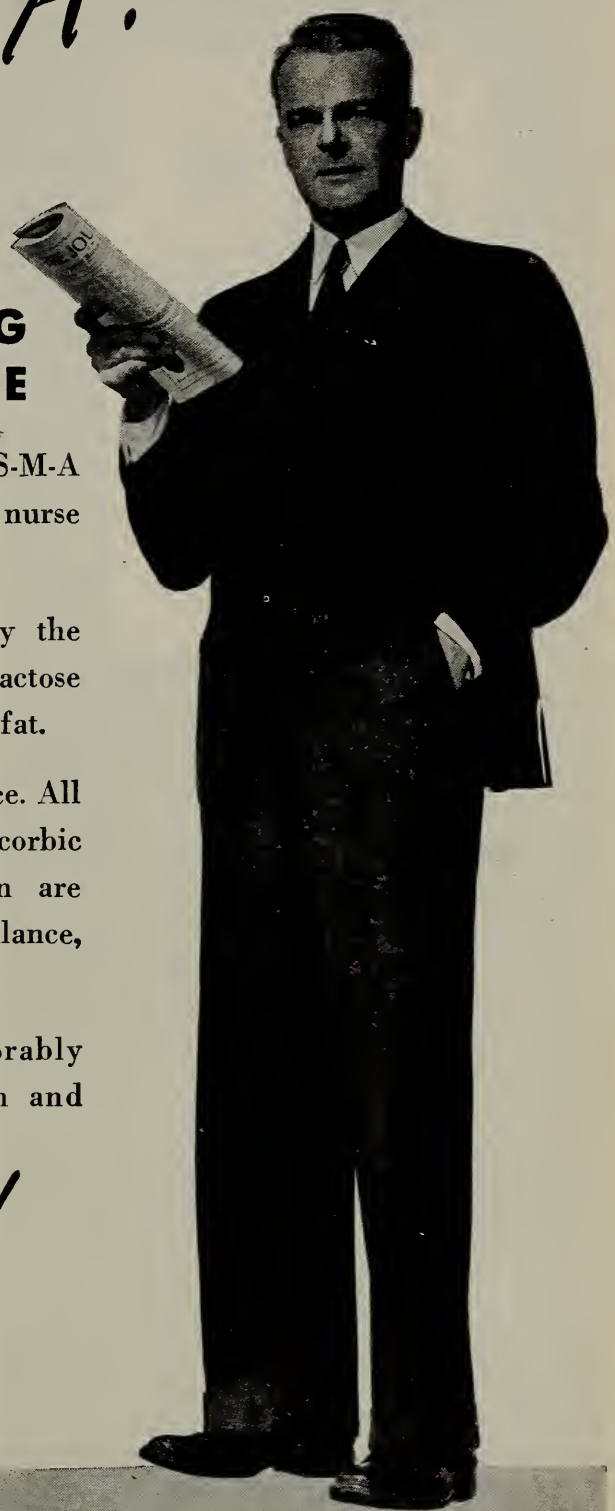

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ner. Dr. Garner, who was present at the banquet, gave a very interesting talk in which he reviewed and contrasted the conditions of medical practice as existed in Traverse City at the time the Society was founded with those of today.

At the conclusion of this program, Dr. McKhann presented a very interesting color film on the Exanthemata.

On Friday an operative clinic was held at the J. D. Munson Hospital, beginning at nine o'clock and extending throughout most of the day.

At the end of Friday Clinic the doctors retired to the Long Lake Cottage of Dr. H. B. Kyselka where the program was concluded informally. It was felt that this was by far the most successful as well as the best attended meeting of this group that has been held to date.

B. B. Bushong, *Secretary.*

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Periodic medical publications are rarely in a position to render greater public service through the medium of the printed page than they are during times of national stress and emergency such as now face the American people with our country's active participation in World War II. Never does the organized medical profession have a better opportunity to demonstrate its implied health leadership than during such trying times. Critics of our government not infrequently refer more or less caustically to repeated and oft-time sudden changes in administrative policies relative to preparation for the conduct of war or of civilian defense.

Some of these are the experiences which when approached or accepted in the proper spirit lead eventually to such governmental triumphs for democracy as may be credited to republics like our own.

Should we not all be thankful that government leaders are at times smart enough to adjust administrative policies to the experience and results of preceding completed trial procedures? Can the voluntary spirit vested in private enterprise such as is claimed for our county, state, and national medical societies render greater public service than to make prompt effort to coördinate its various localized endeavors so as to augment the solution of governmental and public needs, whether they be on a county, state, or national scale?

While on this subject, it is deemed wise to call attention to the declared policy of The Medical Society of the State of Pennsylvania during World War I. It should especially be called to the attention of any officer, committee chairman, or member of a medical society who at present is consciously or subconsciously entertaining the thought that because of current conflicting war and civilian defense interests there is any justification for a let-down in the individual and organizational endeavors of the medical profession. All should be reminded of that which the society went through in 1917 and 1918 (World War I). Despite absenteeism by members in war service during that period, which on a percentage basis was much heavier at that time than is absenteeism at present (World War II), the House of Delegates and the component societies of that day adopted and adapted the following philosophy:

*"The longer the war continues and the more of our members enter the service, the more patriotic and energetic must the rest of us become. The interest of our profession and of our country demand that medical organization shall not be allowed to wane. Each member must be willing to do more and more for his country and profession, but it is the officers, especially secretaries, of state and county societies that must be doubly alert and loyal."—The Pennsylvania Medical Journal,* March, 1942.



*Say you saw it in the Journal of the Michigan State Medical Society*

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# Factors in Deficiency Disease*

By V. P. Sydenstricker, M.D.
Augusta, Georgia

V. P. Sydenstricker, M.D.
*M.D., Johns Hopkins, 1915. Intern and assistant resident physician. Johns Hopkins Hospital, 1915-17. Medical Corps, U. S. Army, 1917-19. Professor of Medicine, University of Georgia School of Medicine, 1923 to present.*

■ The specific pattern of avitaminosis prevalent in a locality is apt to depend on the general economic status and the basic food habits of the population. Poverty quite regularly necessitates a diet dangerously poor in animal protein and fat and excessively rich in carbohydrate. Food habits dictate the predominant carbohydrate food. Where white flour, rice and corn furnish the bulk of the calories B group, deficiency disease is apt to be common if not endemic; where potatoes are an important constituent of the diet it is unusual. The incident of vitamin A deficiency is directly related to the use of the "leafy green and yellow" vegetables and scurvy may occur anywhere, more often from faulty selection of foodstuffs than from poverty. Anywhere and at any economic level, deficiency disease may result from indulgence in dietary fads, the prolonged use of severely restricted diets prescribed for the relief of allergic conditions or various disturbances of the gastro-intestinal and biliary tracts; and alcoholism. Of equal importance with inadequate or improper diet is failure of absorption or utilization of vitamins when the intake seems quite sufficient. Common "intrinsic" causes of avitaminosis are gastric achlorhydria, chronic diarrhea of any etiology, biliary and hepatic diseases and frequent vomiting. In the same category may be included the various conditions which create an increased demand for vitamins. Fever, pregnancy, unaccustomed work or hyperthyroidism may raise the metabolic level beyond the critical point. Therapeutic maintenance on dextrose solutions given intravenously is a commonly encountered source of severe acute avitaminosis.

In the present state of knowledge of deficiency disease it is hazardous to be dogmatic in the interpretation of the effects produced by the administration of a single pure vitamin. Something is known of the relief of certain syndromes by the administration of vitamin A, a few members of the "B group," ascorbic acid, vitamin D and vitamin K. We are still ignorant of the influence of lack of one vitamin on the physiologic functions of others and of the synergistic activity of the entire group of essential nutritive substances. It is probable that "chain reactions" requiring the biochemical functions of many vitamins are of prime importance in normal metabolic processes. This hypothesis applies particularly to the various members of the "B group" but may serve to explain certain observations which indicate that the utilization of vitamin A depends on adequate supplies of riboflavin and ascorbic acid.[9] There is yet no symptomatology attributable to lack of pyridoxine, pantothenic acid, biotin or the unisolated factors in liver. Choline, inositol and/or lipocaic have been shown to have important functions in experimental animals but one can only speculate upon their possible relation to various phenomena of human avitaminosis.

Clinical observers have sought to correlate the incidence and symptomatology of diseases cured by thiamin, riboflavin and nicotinic acid with

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current theories regarding the biochemical activity of these vitamins. All three, and probably pyridoxine, are components of various co-enzymes which are necessary for the derivation of energy from carbohydrate and lack of any one is thought to interrupt the processes of cellular metabolism. The symptoms and signs of avitaminosis are interpreted as results of disturbances of chemical reactions necessary to the life processes of cells due to failure of normal co-enzyme reactions. The clinical phenomena depend on the severity of vitamin depletion and the rapidity with which it is brought about. This hypothesis agrees closely with many of the known features of human deficiency disease but fails to explain many others.

### Experimentally Induced Deficiencies

One of the most constant pathological findings in this group of diseases is extensive fatty infiltration of the liver which has been interpreted as a cause as well as an effect of deficiency disease. An analogous condition was observed by Sebrell and Onstott[19] in dogs dying of riboflavin deficiency. The recent demonstration by McHenry and Gavin[4,12] that fatty liver in rats can be produced by thiamin in the absence of choline and by biotin in the absence of inositol suggests that the same or analogous vitamin imbalances may be the cause of hepatic lipoidosis in human malnutrition. The same authors[13] have produced experimental evidence that pyridoxine is essential for the synthesis of fat from protein, and Mannering, Lipton and Elvehjem[14] have made observations which suggest that riboflavin is concerned with the phosphorylation or metabolism of fat. While no significant experiments have yet been carried out on human subjects it becomes necessary to consider the probability that the vitamins under consideration are concerned with the metabolism of fat as well as that of carbohydrate. The proof of such function would solve many of the present problems of nutritional disease.

*Thiamin.*—In experimentally induced thiamin deficiency with all factors controlled as completely as possible[8,27,28,29] it has been found that undue fatigue and dulling of interest are the earliest symptoms of deprivation. Often a typical neurasthenic syndrome developed. Anorexia, constipation, slight to moderate dyspnœa on exertion, due precordial pain and occasional palpitation occurred later. Some subjects complained of burning of the feet and cramps in the muscles of the feet and legs. Objectively, hyperesthesia of the feet and ankles, doughy firmness and tenderness of the calf muscles and slight changes in the electrocardiogram have been observed. Neither true peripheral neuritis nor marked edema have been produced. A considerable proportion of subjects developed gastric achlorhydria, hyperchromic and macrocytic anemia and hypoproteinemia.

*Riboflavin.*—In riboflavin deficiency produced under excellently controlled conditions, symptoms were few.[17,18] Maceration at the commissures of the lips with redness and some desquamation along the lines of opposition were the first lesions to appear. Later fissures developed at the commissures and redness spread to the oral surfaces of the lips. Mild seborrheic lesions occurred in the naso-labial folds, on the alæ nasi and occasionally on the ears and eyelids. In some patients fissures and indolent ulcers developed at the junction of the nasal septum with the lip. Later experiments with more alert subjects[10,26] have shown that photophobia with burning or itching of the eyes, anorexia and lassitude may precede the development of any gross physical signs. In such patients slit-lamp inspection of the cornea shows early superficial vascularization by the time photophobia is a complaint. Certain elderly subjects may complain only of dimness of vision and soreness of the tongue and proceed to the development of cheilosis without showing any invasion of the cornea by capillaries. Flattening of the lingual papillæ with dilation of the capillaries producing a notably clean, purplish red, granular tongue occurs in almost every instance of induced ariboflavinosis.

*Nicotinic Acid.*—The production of experimental nicotinic acid deficiency has seldom been attempted in previously normal individuals, the great majority of observations having been made on pellagrins apparently restored to health for a relatively short period of time.[18,20,25] In such subjects maintained on a diet poor in all vitamins but supplemented with all those available except nicotinic acid, psychic symptoms somewhat similar to those produced by thiamin deficiency are first to appear. Later, slight confu-

sion, irritability and forgetfulness for recent events are common. Anorexia, gastric discomfort and constipation follow. Still later moodiness with disinclination to talk, insomnia and marked confusion may occur. With these psychic symptoms there is often soreness of the tongue and undue[3] sensitiveness of the tongue and buccal mucosa to heat. If food is forced, diarrhea is apt to follow. Glossitis is almost always the first objective sign to appear, the tongue becomes increasingly red with atrophy and desquamation of the papillæ so that eventually it assumes the typical bright red, slick, often fissured, appearance long associated with pellagra. Under magnification the filiform papillæ have disappeared, the basement membrane appears with a hexagonal pattern indicating the location of the papillæ and the capillary loops of each papilla lie coiled in the central portions of each "hexagon." In our experience dermatitis has been the last phenomenon to be produced, in the great majority of instances it has failed to appear before the condition of the subject necessitated the termination of an experiment. Neither sunlight, ultra-violet light, infra-red, non-radiant heat, friction or chemical irritation have been more than very occasionally effective in seeming to precipitate the development of typical dermatitis. In a few patients maintained from five to seven days on glucose and water with supplements of vitamins excepting nicotinic acid, typical and severe dermatitis has appeared without any exposure to light or irritation. Nevertheless in endemic pellagra there seems no reasonable doubt that any sort of trauma including exposure to heat, light or chemical irritants may determine the incidence and location of skin lesions.

*Single Vitamin Therapy.*—**When the predominant symptoms and signs of an experimentally produced or spontaneous deficiency syndrome are cured by the administration of a single crystalline vitamin it does not follow that the total effect is due to the substance given. It is almost certain that severe deprivation of one vitamin interrupts all the chain reactions with which it is concerned so that apparently unrelated disturbances may be corrected. Also it is very likely that prolonged deficiency of certain of the vitamins produces functional and even structural changes in the gastro-intestinal tract which interfere with the absorption or utilization of many or most of the essential nutrients. With restoration of function following treatment with one vitamin the entire pattern of nutrition may be changed with improvement of numerous symptoms and signs. Improvement of appetite following the administration of either thiamin or nicotinic acid often increases the intake of foods which are fair sources of vitamins to such an extent that associated deficiencies are cured. With all these sources of error it is unavoidable that the interpretation of the results of treatment of any spontaneous deficiency must be open to criticism and to revision as knowledge of the synergistic and the antagonistic action of vitamins increases.**

*Causes of Avitaminosis.* — The mechanism which is active in the production of "B group" avitaminosis is thought to be the effort of the body to derive energy from carbohydrate in excess of the available supply of vitamins. The biochemical processes are normal so far as intrinsic cellular metabolism is concerned. Disease results from failure of the extrinsic supply of substance required to replenish the co-enzymes. Many factors contribute to imbalance between demand and supply. An excess of carbohydrate in the diet is the basis of the endemic avitaminoses under discussion; by excess is meant an amount greater than can be oxidized by the vitamins ingested. The use of an inadequate diet probably never produces a solitary or an acute avitaminosis since no naturally selected diet is completely lacking in any single vitamin however poor it may be in many. In the course of time chronic partial deficiency brings about functional and even organic changes which interfere with the absorption or utilization of the small amounts of vitamins available so that eventually a critical grade of depletion is produced. In persons whose nutritional status is chronically poor but still adequate at a given level of metabolism, any factor which increases the energy requirement may precipitate a frank deficiency state by increasing the consumption of co-enzymes. Unaccustomed work, fever, the stress of injury or of surgical operations, pregnancy or hyperthyroidism are frequent causes of such nutritional imbalance. The substitution of alcohol for food and therapeutic maintenance with parenterally administered solutions of glucose are even more potent in produc-

ing rapid depletion of vitamins. Equally important with inadequate intake of vitamins is failure of absorption or of utilization or of storage. Loss of ingested protective foods by vomiting or diarrhea is common. Gastric achlorhydria seems to interfere greatly with the extraction of vitamins from food, atrophy or edema of the intestinal mucosa prevents adequate absorption. Any clinically recognizable grade of hepatic disease seems to facilitate the development of deficiency and seriously to impair the effects of treatment. It is likely that both phosphorylation and storage are affected. Since achlorhydria, atrophy of the gastro-intestinal mucosa and fatty infiltration of the liver are constant effects of severe B group avitaminosis, it is evident that a truly vicious circle is produced. Infections which produce ulceration and edema of the colon with diarrhea and perhaps liver damage from constant absorption of the products of bacterial metabolism are particularly likely to be complicated by severe grades of polyavitaminosis. Lymphopathia venereum and all types of ulcerative colitis are the common diseases in this group.

### Differential Diagnosis

Whether the diet is seriously inadequate or whether the individual is unable to extract, absorb or utilize the vitamins of an adequate diet the resulting clinical picture is a mosaic of the effect of deficiency of many vitamins. The general pattern is usually determined by a predominant lack of thiamin, of nicotinic acid or of riboflavin. Individual cases present an infinite variety of symptoms and signs, not infrequently it is exceedingly difficult to determine the paramount deficiency. It is customary and probably correct to attribute symptoms and signs of peripheral neuropathy, cardiac embarrassment, gastro-intestinal atony and perhaps certain combinations of signs of central and peripheral nervous lesions to deficiency of thiamin. Psychic disturbances, erythematous, pigmented or bullous types of dermatitis symmetrically distributed on the extremities and/or appearing on the face, neck or perineum, atrophic glossitis and evidences of severe functional and structural changes in the gastro-intestinal tract are considered characteristic of nicotinic acid deficiency. Cheilosis, a particular sort of glossitis, seborrheic dermatitis of various types and superficial vascularizing keratitis with or without superficial and interstitial corneal opacities and with various functional disturbances of vision are thought to be manifestations of riboflavin deficiency.[10,26] It is notable that few patients present all the symptoms and signs attributable to a single avitaminosis but that almost every one shows some evidence of several.

With predominant deficiency of thiamin the early symptoms of ready fatigue and anorexia are apt to be associated with nervous irritability, forgetfulness or confusion. Whether or not there are complaints of burning of the soles and leg cramps on exertion, the calf muscles are firm and doughy and pressure on the muscles causes pain, often when no pain is felt on pressure over the tibial or peroneal nerves. The soles are quite regularly hyperesthetic. There is often loss of pain sensation over various skin areas without impairment of other modalities. The tendon reflexes are exaggerated. Glossitis of either the riboflavin or nicotinic acid deficiency type is more often present than not and there may be hyperesthesia of the buccal mucosa. Very frequently there is slight pellagrous dermatitis and moderate or severe corneal vascularization. When frank peripheral neuritis with diminished tendon reflexes and gross motor and sensory dysfunction is the presenting phenomenon, glossitis and dermatitis, however mild, of the nicotinic acid deficiency type are seldom absent and very often there is corneal vascularization though no other sign of riboflavin deficiency may be present. Wet beriberi is quite common and is usually diagnosed as heart failure not improved by digitalis or the commonly used diuretics. We have seen no instance of wet beriberi in which there was neither glossitis, dermatitis or corneal vascularization. In 90 per cent of cases there is the pigmented type of symmetrical dermatitis characteristic of nicotinic acid deficiency. Some 60 per cent have glossitis characteristic of nicotinic acid or riboflavin deficiency and all have showed superficial vascularization of the cornea. Gastro-intestinal atony is a common manifestation of thiamin deficiency and is particularly troublesome in patients with wet beriberi, marked abdominal distention with constipation and a "silent abdomen" are characteristic. The radiographic findings of a huge atonic stomach and greatly dilated colon devoid of haustrations are important and helpful. Electrocardiograms are often informative. Achlorhydria, anemia and hypoproteinemia are no more common in patients with

frank beriberi than they are in those with pellagra. The specificity of these evidences of avitaminosis is questionable. 72.5 per cent of our patients with deficiency diseases of all types have had achlorhydria, 84 per cent have been anemic and less than 10 per cent have shown deficiency of plasma proteins.

The classical syndrome of nicotinic acid deficiency is pellagra. The term pellagra implies the presence of symmetrical dermatitis of particular types. Dermatitis is a late and relatively rare manifestation of nicotinic acid deficiency but may occur in the absence of other specific signs. In mild nicotinic acid deficiency psychic symptoms predominate, the lassitude, "nervousness," mental confusion, or intense irritability may precede all other symptoms. Frequently gastric discomfort and constipation accompany the initial nervous syndrome.[20] Anorexia and constipation are apt to be prominent complaints at this stage of deficiency. Atrophic glossitis with hyperesthesia of the buccal mucosa, esophagus and stomach soon follow, diarrhea is frequent but is apt to occur at considerable intervals and persist for only a day or two. Headache, vertigo and impaired hearing may be troublesome. Dermatitis is exceedingly variable in its incidence and distribution. Typically the forehead, malar eminences, neck, hands, forearms, perineum and feet are the sites of pellagrous dermatitis. Any one of all of these areas may be involved, the elbows and knees are particularly apt to show lesions. There may be balanitis, vaginitis or dermatitis of the intercrural region. Dermatitis may vary from mild erythema through all gradations of eczematous, vesicular, bulbous, pigmented and hypertrophic lesions. Cheilosis is seldom absent in typical endemic pellagra and about 80 per cent of patients examined with the slit lamp have had some grade of superficial vascularizing keratitis. Seborrheic lesions of the face, nose or ears are very common and in times past were described as typical of pellagra. Doughy, tender calves, plantar hyperesthesia, signs of peripheral neuritis or clinical and electrocardiographic signs of cardiac embarrassment are almost invariable findings. Often the psychic symptoms of nicotinic acid deficiency are present with few and minimal somatic signs. Stupor and the signs of "nicotinic acid deficiency encephalopathy"[2,7] are seldom seen in the presence of typical dermatitis though glossitis or vaginitis is present in almost every instance. "Conjunctivitis" which proves to be the pericorneal injection of riboflavin deficiency and evidences of peripheral neuropathy or of generalized interstitial edema are quite frequently present in patients with encephalopathy.

Many of the features of Wernicke's encephalopathy are identical with those described by Cleckley[2] and Jolliffe[7] and their collaborators as characteristic of stupor or encephalopathy responding rapidly and dramatically to nicotinic acid therapy. In our experience the Wernicke syndrome may respond to treatment with either thiamin or nicotinic acid, the most rapid cures have been effected with mixtures of nicotinic acid amide, thiamin and riboflavin administered intramuscularly or intravenously. It seems likely that this condition reflects an ultimate grade of B group deficiency in which the administration of any of the major components of the group produces rapid improvement because reserves of the other vitamins, unable to function in the presence of a gross inadequacy of co-enzymes, are made available.

**The signs of ariboflavinosis occur more frequently than those of any other avitaminosis. Riboflavin is more scarce in ordinary foods than other members of the B complex and there is reason to think that there are more factors which condition its absorption and utilization than is the case with thiamin or nicotinic acid. Cheilosis, typical glossitis, corneal vascularization, conjunctivitis and localized seborrheic dermatitis of the face may occur without definite signs of coincident deficiency of other vitamins of the B group.[23] Failure to recognize associated avitaminoses is probably due to lack of knowledge since the almost regular incidence of signs of riboflavin deficiency in the syndromes of thiamin and nicotinic acid deficiency has been mentioned. In advanced cases fissures of the optic commissures, septal fissures and ulcers in the nose and severe keratitis with vascular invasion of all layers of the cornea have been noted.[10,24,26] Itching dermatoses of the genitalia and perineum are common. Such patients have shown symptoms or signs of thiamin and nicotinic acid deficiency, sometimes on admission, more often after a few days of hospitalization on a vitamin poor diet supplemented with riboflavin only.**

Closely related to riboflavin deficiency in symptomatology but much more striking as an example of polyavitaminosis is the so-called "tropical avitaminosis." This condition has been described by many authors.[1,11,15,16,22] The outstanding signs are soreness and desquamation of the lips followed by the development of fissures in the commissures of the lips, conjunctivitis with fissures at the canthi, extreme photophobia, dimness of vision, and limitation of the visual fields, glossitis, often so painful as to interfere with eating and an "eczematous" dermatitis of the genitalia. Ophthalmoscopic examination shows evidence of retrobulbar neuritis and permanent impairment of vision is a frequent sequel. We have seen only three examples of this syndrome. In addition to the signs mentioned by the authors cited we found marked calf tenderness and hyperesthesia of the soles and severe corneal vascularization. One patient who refused all food except milk was treated with nicotinic acid only and made a complete recovery in eight days. It was estimated that his daily intake of one gallon of milk furnished about 2.5 milligrams of thiamin and five milligrams of riboflavin in addition to the 1,000 milligrams of nicotinic acid given daily. Vision which was 15/200 on admission with almost total loss of color discrimination was 20/30 on discharge and color discrimination was normal. A second patient with almost identical lesions and visual impairment refused all nourishment except bottled carbonated drinks. He was treated with 1,000 mg. of nicotinic acid, 20 mg. of thiamin and 10 mg. of riboflavin daily and made a complete recovery in ten days. The third patient had photophobia, conjunctival injection, severe cheilosis and glossitis, balanitis and edema and redness of the scrotum. There was severe corneal vascularization and mydriasis. Visual acuity was not impaired nor was color vision. Ophthalmoscopic examination showed no evidence of retrobulbar neuritis. Treatment consisted of 500 mg. of nicotinic acid, 30 mg. of thiamin and 15 mg. of riboflavin daily for six days; at the end of this time cure was complete. The cheilosis and corneal vascularization in this syndrome seem typical of ariboflavinosis, the glossitis and genital dermatitis were characteristic of nicotinic acid deficiency. The evidences of retrobulbar neuritis present in two patients cannot at present be related to any of the vitamins used in treatment; since there was evidence of peripheral neuropathy and optic neuritis healed promptly, it seems likely that thiamin deficiency was the cause of both types of nerve lesions though the cranial nerves are generally considered exempt from the effects of thiamin deficiency.

There are a number of atypical scaly dermatoses closely resembling seborrheic dermatitis which seem to be manifestations of B group avitaminosis. P. György has discussed them fully[6] from the standpoint of their analogy to the dermatoses produced in animals by pyridoxine and biotin deficiency and Gross[5] has described and illustrated them in some detail as manifestations of B group vitamin deficiencies curable with liver extract. In our experience with a few such dermatoses the signs of riboflavin deficiency (cheilosis, keratitis) and of nicotinic acid deficiency (glossitis) were always present. Our patients were treated with liberal amounts of riboflavin and, without exception, recovered. It is likely that recovery would have been more prompt had nicotinic acid been added. At the time it was thought that dietary sources of nicotinic acid and thiamin were adequate.

## Treatment

The treatment of the various manifestations of avitaminosis remains empirical in that indications for and results of vitamin therapy must still be evaluated clinically rather than by accurate chemical methods. The amounts of vitamins required for effective treatment are apt to be greatly in excess of theoretic requirements, possibly because of organic changes in the gastro-intestinal tract which are the result of prolonged vitamin deficiency. Gastric achlorhydria is certainly an important cause of poor extraction of vitamins from food and unrecognized or unrecognizable hepatic disease must frequently prevent their normal phosphorylation and storage. Such intrinsic defects affect the absorption and utilization of all the vitamins and often explain the development of deficiency disease in persons taking an adequate diet. The administration of a single vitamin of the B group in large amounts may produce rapid, even spectacular cure of certain signs and symptoms but if continued, such therapy is almost certain to result in the appearance of characteristic symptoms and signs of other avitaminoses. The probable cause of this phenomenon is the exhaustion of reserves of

stored vitamins used up in enzymatic chain reactions made possible by an ample supply of one component of the series.

It is entirely true that the basis of treatment of all avitaminoses is a good diet and for patients who can swallow and retain a high caloric, high protein, high vitamin diet, this is the ideal method of treatment. In the majority of instances of endemic avitaminosis it is impossible for the patients to procure such a diet and in very many cases of severe deficiency disease of non-dietary origin such a diet cannot be eaten, retained or utilized. Whenever possible curative diets such as those described by Spies, Chinn and McLester[21] should be used. It is often possible to administer the liquid curative diet by tube to patients unable to drink. For rapid cure, such a diet should be supplemented with ample amounts of synthetic vitamins and also with yeast or crude extract of liver. Every case of severe avitaminosis is a medical emergency which must be treated quite as actively as diabetic coma or mercurial poisoning. Since the water-soluble vitamins are rapidly excreted in the urine it is necessary to give large daily doses in relatively small aliquots administered at frequent intervals. In the absence of vomiting, severe diarrhea or edema of the gastrointestinal mucosa it is likely that oral administration of vitamins is as effective as injection but when retention or absorption is doubtful intravenous or intramuscular injection is the route of choice. Always patients respond more rapidly when crude extract of liver is used in conjunction with synthetic vitamins. The optimal dose of injectable liver extract is not less than 3 cc. daily, 5 cc. is more certainly an effective dose.

In beriberi, thiamin should be given in doses of 10 mg. from three to ten times daily, the total dose depending on the severity of the clinical manifestations. In the less severe forms of thiamin deficiency 3 to 10 mg. daily may be adequate. In addition to thiamin, at least 3 mg. of riboflavin and 50 mg. of nicotinic acid should be administered until all evidences of avitaminosis are absent. In ariboflavinosis it is extremely difficult to predict the effective dose of riboflavin, 6 to 15 mg. of the vitamin should be given, some patients may require 30 mg. daily. At least 3 mg. of thiamin and 50 mg. of nicotinic acid should be added. In pellagra and the apparently specific cerebral manifestations of nicotinic acid deficiency, 600 to 1800 mg. of nicotinic acid should be given each day until cure is effected. The complement of thiamin should not be less than 6 mg. and of riboflavin at least 3 mg. In our clinic it is customary to treat severe pellagra with mixtures containing 1 mg. of riboflavin, 10 mg. of thiamin and 100 mg. of sodium nicotinate or nicotinamide in each aliquot. Such a mixture is empirical and probably wasteful but quite effective. The role of pyridoxin in human avitaminosis is still unknown. It is possible that this vitamin has to do with the utilization or mobilization of other members of the B group. No definite dosage can be prescribed but our experience suggests that amounts of the order of 5 mg. daily are helpful in securing the full effects of other vitamins of the B group while large amounts such as 50 to 100 mg. daily may be harmful because they cause unduly rapid excretion.

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# "B" Vitamins in Dermatology

## With a Special Study of Vitamin B6 (Pyridoxine)*†

By Carroll S. Wright, M.D.
Professor of Dermatology and Syphilology
Temple University School of Medicine
Philadelphia, Pennsylvania

Carroll S. Wright, M.D.
*B.S., University of Michigan, 1917; M.D., University of Michigan, 1919. Instructor in Dermatology and Syphilology University of Michigan Medical School, 1920-1922; Associate Professor of Dermatology and Syphilology Graduate School of Medicine, University of Pennsylvania. Professor of Dermatology and Syphilology Temple University School of Medicine. Consultant Dermatologist to Philadelphia Municipal Hospital; Widener School for Crippled Children; Shriner's Hospital; Pennsylvania Institute for Blind; Pennsylvania Institute for the Dumb; Vineland Training School. Trustee of Research Institute of Cutaneous Medicine. Associate Editor of the "Medical World" and "The Weekly Roster and Medical Digest." Member of American Dermatological Association, Society for Investigative Dermatology, American Academy of Dermatology, Philadelphia College of Physicians, Nu Sugma Nu and Sigma Xi. Author of textbooks "Treatment of Syphilis" with Dr. Jay F. Schamberg and "Manual of Dermatology" and numerous contributions to dermatological literature.*

There is increasing evidence of the importance of the "B" vitamins in dermatology. Reports emanating from research laboratories indicate a strong tendency to the appearance of dermatological lesions in experimental animals fed diets deficient in "B" vitamins, but there is still considerable doubt as to whether we can correlate these changes in the lower animals with skin diseases of human beings. However, the dermatologist is increasingly recognizing the fact that numerous dermatoses that were once believed to be of toxic origin or of metabolic origin, are either deficiency diseases or at least greatly influenced by dietary deficiencies or vitamin deficiencies. As Andrews[1] pointed out at the Section on Dermatology of the Medical Society of the State of Pennsylvania in 1939, "Although the knowledge of vitamin deficiency diseases is still very vague, there are indications of a group of skin conditions directly caused by deficiency, and another group of diseases in which a nutritional deficiency predisposes to the onset and influences the course of some infectious disease although not causing it directly."

Vitamin B is known to have the following components: vitamin $B_1$ (or thiamin chloride), $B_2$ or riboflavin, pantothenic acid (filtrate factor), nicotinic acid and derivatives (P-P factor) and $B_6$ (Pyridoxine). The "B" complex, as usually marketed, has all of these components and may contain in addition, brewers' yeast.

### Vitamin $B_1$ (Thiamin Chloride)

Thiamin chloride, according to Spies[28] is probably important to all cellular life and is certainly important for the normal function of the nervous system. Improvement in acrodynia has been reported by Durand, Spickard and Burgess[5] and more recently by Forsyth.[7] Of greater interest to the dermatologist are the reports by Rattner and Roll,[21] Goodman[9] and Gordon[10] on the use of vitamin $B_1$ in the treatment of herpes zoster. Of sixteen patients treated by Rattner and Roll, eleven were unimproved. The results reported by Goodman and Gordon were more gratifying. Further investigations are necessary before the value of thiamin chloride therapy for herpes zoster can be fully evaluated, but there is reason to believe that fairly large doses are required to give relief from symptoms—perhaps as much as 100 mg. daily. Madden[18] has recently reported favorable results in a small number of cases of psoriasis following therapy with vitamin $B_1$ and I have on record a patient with an intractable psoriasis of the palms who cleared up completely after taking 10 mg. of thiamin chloride daily for several weeks, relapsed on discontinuing the drug and cleared up when the drug was started

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†All vitamins included in this study were furnished through the courtesy of Merck & Company.

again. Other cases have shown little or no response.

Extensive skin changes as a result of thiamin deficiency have not been reported.

### Riboflavin (Vitamin $B_2$)

Riboflavin-deficient rats have been observed to develop an eczematous condition affecting chiefly the nostrils and eyes, and branny flaking and scaling of the skin occurs. Synthesized artificially for the first time in 1937, the literature on riboflavin and its deficiencies, is already extensive. Sebrell and Butler[24,26] found that a riboflavin deficiency in human beings produced lesions of the lips and angles of the mouth, and seborrheic changes on the nose and ears. Studies by Spies, Bean, Vilter and Huff[30] on "endemic riboflavin deficiency in infants and children" indicate that riboflavin deficiency is a non-contagious, non-hereditary disease occurring in either sex of any race, developing over months and years and the appearance of diagnostic lesions is preceded by a period of ill health which may be termed "the deficiency development time." They further observed that the oral administration of 1 mg. of riboflavin t.i.d. or one ounce of brewers' yeast or liver extract daily, was followed by an increase in vigor and in sense of well-being. Ocular manifestations disappeared and lesions around the mouth healed. Other papers well worth reading by the dermatologist on riboflavin deficiency in human beings are those by Spies, Vilter and Ashe[34] and Jolliffe, Fein and Rosenblum.[16] According to Snell and Strong[25] the determination of blood and muscle riboflavin is of little significance in the evaluation of riboflavin deficiency in man.

The problem of many cases that were formerly called per-leche has thus been solved. Riboflavin given orally in a dose of 1 mg. t.i.d., reinforced by either brewers' yeast or liver extract and a full diet should be tried in eczematous eruption involving the mouth, nose, eyelids and ears, and also to increase the efficacy of nicotinic acid in certain pellagrins (Spies[28]).

### Pantothenic Acid (Filtrate Factor)

An impure form of pantothenic acid was first isolated in 1938 from natural sources, and synthesis was only accomplished as recently as 1940. Little is known concerning the human requirement for this substance. According to Sebrell[25] the filtrate factor (pantothenic acid) is not concerned in pellagra, although Spies, Stanbery, Williams, Jukes and Babcock[33] found the blood pantothenic acid of patients with pellagra, beriberi and riboflavin deficiency decreased from 23 to 50 per cent from the normal. György and Poling[14] observed that concentrates of pantothenic acid, with a purification up to 40 to 50 per cent, appear to contain one factor, but not the only factor concerned in the cure of nutritional achromotrichia in rats. Williams,[36] however, claimed that neither pantothenic acid concentrates nor pure pantothenic acid exhibited a preventive or curative effect on the gray hair of rats. Dimick and Lepp[4] found that for the rat on a factor 2, deficient diet pantothenic acid promotes growth, cures the eye symptoms, improves the skin condition and decreases graying of the fur although not completely. Morgan and Simms[19] found that young silver foxes on diet lacking the "filtrate factor" lost their fur, while those receiving the "filtrate factor" retained their fur and had normal dark silver pelts. My own studies of the effects of pantothenic acid administered for one year to two volunteer patients with beginning graying of the hair and for six months in two patients with alopecia areata in which the hair returned white, showed no action at all in restoring normal color. Pantothenic acid is known to relieve the syndrome of chick dermatitis.

### Nicotinic Acid and Derivatives (P-P Factor)

Included are nicotinic acid (pyridine-3-carboxylic acid) and nicotinamide (nicotinic acid amide). This vitamin was first prepared by Huber[15] in 1867. Cure of four dogs suffering from black tongue following single doses of 30 milligrams of nicotinic acid was reported by Elvehjem, Madden, Strong and Woolley[6] in 1937. The use of nicotinic acid for the treatment of human pellagra was advocated in the same year by Fouts, Helmer, Lepkosky and Jukes,[8] and also by Spies, Cooper and Blankenhorn,[31] and since then by many others too numerous to include here. Administration of nicotinic acid in a dosage of 500 to 1,000 mg. daily by mouth cures mucous membrane lesions and relieves wholly or in part the gastro-intestinal and mental symptoms of pellagra. Skin manifestions do not always respond.

**Flushing and erythema of the skin has been observed to follow administration of nicotinic acid due to increased peripheral circulation and capillary dilatation. Although it has been advocated that this vitamin be used for this purpose in the treatment of various dermatological conditions, warning should be given to avoid giving nicotinic acid either alone or in vitamin B complex to patients with "rosacea tendency." Nicotinamide does not produce this reaction.**

### Vitamin $B_6$ (Pyridoxine)

Pyridoxine was isolated in 1938 and synthesized in 1939, although in 1934, György[12] named the "rat pellagra preventive factor" vitamin $B_6$, and there are numerous references in the literature to this vitamin in the ensuing years. György, Sullivan and Karsner[13] in 1937 described scaly dermatoses in rats produced by vitamin $B_6$ deficiency and suggested the name "rat acrodynia."

Antopol and Unna[2] found that rats maintained on a diet deficient in vitamin $B_6$, but supplied adequately with thiamin, riboflavin, and nicotinic acid, developed severe symptoms of vitamin $B_6$ deficiency. Histologic examination showed epithelial cells of the ears to be enlarged, the stratum granulosum was wider, hyperkeratosis extreme and the stratum lucidum thicker and fading imperceptibly into the stratum corneum. There was intercellular edema and acanthosis. Hair follicles and sebaceous glands were inconspicuous. In twenty-four to forty-eight hours following a single dose of synthetic vitamin $B_6$ (100 Y) the edematous state was barely discernible, in three days all ulcerations about the ears, paws and snout, *except the extensive ones,* were healed. The hair matrix showed activity with hair regeneration and the atrophic appearance of the sebaceous glands was lost.

The therapeutic uses of pyridoxine are poorly understood, which is not exceptional in view of the short time that has elapsed since its synthesis. In 1939, Spies, Bean and Ashe[29] reported on four pellagrins who had failed to recover entirely on a selected diet with supplements of thiamin, riboflavin and nicotinic acid, but responded favorably to a single 50 mg. dose of $B_6$. Smith and Martin[27] found healing occurred promptly in three of four cases of cheilosis following intravenous administration of vitamin $B_6$. The fourth case improved slightly, but cure was completed by the addition of riboflavin, nicotinic acid and liver extract.

My interest in vitamin $B_6$ was aroused by the observations of Spies, Bean and Ashe[29] on its use in pellagra. At that time a patient in the Temple University Hospital with pellagra-like symptoms including a dermatitis of the hands, forearms and lower legs and mental instability following a prolonged diet consisting chiefly of fish, meat and alcohol, showed little or no response to a vitamin-rich diet and nicotinic acid. Injections of vitamin $B_6$ were started with immediate improvement and eventual complete recovery. It was decided to try the effects of vitamin $B_6$ therapy in other patients showing various types of eczematous manifestations and to date, fifty-four patients have received this preparation. It is not proposed to make a final analysis of this study at the present time, as results are not wholly conclusive, but a brief review of some of the cases treated and results achieved is offered as a stimulus to study by others.*

### Case Reports

The following cases improved or were cured either without other treatment, or without change in their previous treatment.

*Case 1.*—B. B., aged thirty-seven, merchant, developed a widespread eruption clinically resembling the Sulzberger-Garber syndrome. The eruption would partially disappear when he was away from home and flare up severely upon his return. Cutaneous tests revealed a strong sensitivity to his own house dust. Local therapy was given without improvement, and finally subcutaneous injections of vitamin $B_6$, 50 mg. weekly, were started. Within a few months he was virtually free of his eruption, was able to return to his home without flaring up, and gave a negative reaction to his own house dust. The possibility of a spontaneous change in his allergic state must be kept in mind.

*Case 2.*—Mrs. F. F., aged twenty-eight, housewife, had suffered since childhood with a persistent dry, scaly, pruritic eczema of the seborrheic variety involving the scalp, face, ears, neck and arms. Treatment by several dermatologists, every conceivable type of local therapy, including x-ray, had failed to produce more than a temporary improvement. Subcutaneous injections of vitamin $B_6$, 50 mg. weekly, were started and the patient given a simple boric acid solution for local use. Within three days after the initial injection there was marked clinical improvement and relief from itching, and within three weeks the condition was clear. Treatment was

*Full analysis of the results of the studies of vitamin $B_6$ now being carried out by Dr. M. H. Samitz and Herman Brown, Chemist of the Research Institute of Cutaneous Medicine, and myself, will be published.

continued at two-week intervals for one year with no return of skin lesions, after which the patient did not return for several weeks with the result that she had a slight outbreak. Two weeks after therapy was started again, she was again free of the eruption.

*Case 3.*—Mr. W. A., aged fifty-five, had had for many years a pruritic thickened patch of eczema involving the left cheek and ears and which he attributed to a frostbite. Clinically the patch suggested either a mild neurodermite or a patch of seborrhea. X-ray therapy and a simple paste gave temporary relief, but finally proved ineffective.

Without any hope of its being effective, an injection of 50 mg. of vitamin $B_6$ was given subcutaneously and within one week the patch and its accompanying symptoms had disappeared. With the least warning of itching or return of the patch the patient has insisted upon a further injection always with prompt disappearance of all manifestations.

*Case 4.*—Mrs. S., aged fifty, had for many years a mild squamous eczema of the face and flexures of the elbows. Treatment elsewhere with x-ray therapy and local medication had proven wholly ineffective. After three injections of 50 mg. each of vitamin $B_6$, all manifestations disappeared and have not returned after four months.

Because of a report by Schwartzer[22] of the ineffectiveness of vitamin $B_6$ in the eczema of nurslings, it was for a long time not used in infantile eczema. The following case illustrates the occasional value of vitamin $B_6$.

*Case 5.*—F. D., a three-year-old girl, had since infancy a persistent, dry, squamous eczema fairly widespread over the body. Because of the complete failure of dietary and local measures to bring about any degree of improvement, vitamin $B_6$ was given impirically with a complete disappearance of the eruption. Discontinuance of the vitamin therapy was followed by return of the eruption which again disappeared within three days after a single injection of 50 mg. of $B_6$.

These are a few selected cases illustrating the different types of eczema or eczematous eruptions in which vitamin $B_6$ therapy apparently changed the course of the disease.

Frankly, all the cases of eczema treated did not respond as miraculously and in an endeavor to determine in advance which patients actually were deficient in vitamin $B_6$, we* resorted to the excretion test using the colorimetric method devised by Scudi, Koones and Keresztesy[23] and first reported in January, 1940. Spies, Ludisch and Bean[32] using this method found that one hour after injection, five normal individuals excreted in the urine an average of 7.9 per cent of 50 mg. of pyridoxine injected intravenously. Nine ambulatory patients with evidence of either pellagra, beriberi or riboflavin deficiency excreted an average of 0.2 per cent and three hospitalized patients with clinical deficiency disease excreted almost none. These three patients were on a diet deficient in vitamin $B_6$, and it may be mentioned here that the accredited sources of pyridoxine are rice, bran, liver, yeast, legumes, egg yolk, cereals and seeds. Although we plan to eventually include a tabulation of findings of the excretion tests in relation to the treated cases and results achieved, it may be of interest to note that in Case 5 above, early studies showed an excretion of only 1.8 mg. (3.6 per cent) of 50 milligrams injected at the height of the eruption while during the stage of quiescence 10.1 per cent was excreted. In this way it is shown that the patient was in need of, and absorbing vitamin $B_6$ when the eczema was active and eliminating a fairly high percentage (10.1 per cent) during the quiescent stage. Vilter, Schiro and Spies[35] have shown that large doses of vitamin $B_6$ given intravenously cause an increase in reticulocytes and white blood cells, particularly polymorphonuclears. It is possible that these changes have a definite curative influence in certain cases of eczema. Our studies to date indicate that favorable action may be looked for in pellagra or pellagra-like eruptions, seborrheic eczema, and occasionally in neurodermatitis and atopic eczema. Our studies also indicate a particularly favorable action in seborrheic dermatitis.

## Vitamin B Complex

Gross[11] has recently reported a series of cases of extensive and localized eruptions which responded to treatment with liver extract and suggests the conditions represent a vitamin B complex deficiency which may be due to low intake or based on a constitutional predisposition which may be identified with the so-called seborrheic diathesis. Seborrheic eczema, extensive monilial infections of the skin, vulval and anal eczema and kraurosis vulvæ, and certain types of arsphenamine dermatitis responded to liver therapy. Our own studies show an increase in urinary excretion of pyridoxine in normal subjects following administration of liver extract. Kristensen and Vendel[17] have reported striking results in typical

*M. H. Samitz, M.D.; Herman Brown, B.S., and C. S. Wright, M.D.

cases of eczema following saturation of the patient's system with vitamin B complex, while against other skin diseases this therapy had no such specific effect. Burgess[3] found the response of fifteen cases of lichen planus to vitamin B complex so good at times to appear almost specific. Vitamin B complex has recently enjoyed considerable popularity as a remedy for stopping premature fall of hair although it has shown no propensities for growing hair on bald heads. It also appears to be of value in stimulating regrowth of hair in alopecia areata.

## Summary

A few years ago when asked to discuss "Vitamins in Relation to Dermatology" at the Philadelphia County Medical Society, insufficient literature on the subject was found to make a worth-while publication. The last decade has seen the picture change entirely and today it appears that the "B" vitamins may play an important role in dermatologic therapy. Parran[20] in a discussion of vitamins has recently written, "In the whole problem, and it is an enormous one, deficiencies in vitamin B complex are the most serious." Thiamin chloride (vitamin B) is of value in the treatment of herpes zoster, acrodynia and may prove helpful in psoriasis. Riboflavin deficiency in human beings produces lesions of the lips and angles of the mouth and seborrheic changes. Riboflavin therapy is curative when these changes are seen. The uses of pantothenic acid in human beings remain a mystery, although in lower animals there is a definite effect in counteracting gray hair. Nicotinic acid cures canine black tongue and human pellagra. Pyridoxine is too new to evaluate but in preliminary studies we have found it either helpful or curative in eczematous conditions of the skin, particularly of the seborrheic type. Vitamin B complex which contains all of these factors has been observed to exert a favorable influence on seborrheic eczema, monilia infections, vulval and anal eczema, kraurosis vulvæ and certain types of arsphenamine dermatitis (Gross). It has also been advocated for lichen planus and premature alopecia.

An entire new field of therapy has been opened to the dermatologist and only time and further experimentation and trial will reveal the full value of the "B" vitamin in the treatment of conditions enumerated and perhaps many more.

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# The Clinical Use of Diuretics*

By R. H. Lyons, M.D.
Ann Arbor, Michigan
and
S. D. Jacobson, M.D.
Eloise, Michigan

RICHARD H. LYONS, M.D.
*M.D., University of Michigan, 1935. Assistant Professor of Internal Medicine, University of Michigan. Member, Michigan State Medical Society.*

SAMUEL D. JACOBSON, M.D.
*M.D., Wayne University, 1937. M.S. in Medicine, Wayne University, 1941. Upjohn Fellow in Research. Member of the Detroit Physiological Society and American Federation for Clinical Research. Member, Michigan State Medical Society.*

■ DIURETICS are used to increase the flow of urine in order to remove excessive accumulations of fluid called edema. The effective clinical use of diuretics must be based on an understanding of the alterations in the body which produce edema, so that appropriate measures may be taken to correct these changes. If it is impossible to correct these factors they can often be altered to prevent the accumulation of fluid even though the cause of the edema may persist.

### Factors Favoring the Production of Edema

The water of the body carrying with it concentrations of salts and protein is divided into three separate compartments, the blood, the interstitial fluid, and the intracellular fluid.[14,16]

The water of the blood, the serum, contains a relatively high concentration of protein while sodium chloride is its chief salt. That of the interstitial fluid, or the fluid layer between the blood and the cells, contains relatively little protein and is considered to be an ultrafiltrate[18] of the fluid in the blood stream so again sodium chloride is its most important salt. In contrast to these two fluid compartments, the water within the cells is free of sodium chloride but potassium phosphate is present as its predominant salt. Edema consists of increase in the volume of the interstitial fluid layer and consequently there is an increase in the amount of sodium chloride in the body.

In the nutrition of the tissues there is a constant exchange of water and salt between the blood in the capillaries, the fluid of the tissue spaces, and the cells. This exchange of water from the blood occurs across the semipermeable capillary membrane which permits the passage of water and salts but retains the protein within the blood vessels. It is effected by the so-called filtration pressure at the arterial end of the capillary which forces fluid from the vessel.[30] The water and salts of the interstitial fluid are returned to the blood as a result of the colloid osmotic pressure which is exerted by the proteins in the capillaries.[31] The filtration pressure and the colloid osmotic pressure, which are the chief factors in water exchange, are modified by the pressure in the tissue spaces resisting the filtration pressure, i.e., "tissue pressure,"[22] and by the small amount of protein that may be present in the interstitial fluid. This protein exerts some colloid osmotic pressure which tends to hold fluid in the tissue spaces. Thus if a perfect balance of fluid exchange were to exist across a capillary wall, the capillary filtration pressure and the colloid osmotic pressure of the tissue fluid would be equal to the colloid osmotic pressure of the blood plasma plus the tissue pressure. Since a perfect balance rarely exists, the tissue spaces are relieved of excessive accumulations of fluid through the lymph channels.

**Edema, therefore, may occur when there is a sufficient alteration of any of the following factors: (1) an increase in filtration pressure; (2) a decrease in the colloid osmotic pressure of the serum, through a decrease of the concentration of serum proteins; (3) damage to the capillary wall so that it is no longer a semi-permeable membrane, and protein may pass into the interstitial fluid; (4) obstruction to lymph flow; and (5) decrease in tissue pressure.**

An increase of filtration pressure may occur at the arterial end of the capillary with arteriolar dilatation as a result of inflammation, local heating, nerve injuries affecting vasomotor control, or from dilatation of arterioles in order to dissipate excessive body heat. The filtration pressure may also be increased at the venous end of the capillary through an increase in the venous pressure resulting from local obstructions to

*From the Department of Internal Medicine of the University of Michigan, Ann Arbor, and the Medical Clinics of William J. Seymour Hospital, Eloise, Michigan. Read before the Section of Medicine, Michigan State Medical Society, Grand Rapids, September 19, 1941.

venous return or from a general elevation of venous pressure commonly found in heart failure.

A decrease in the colloid osmotic pressure is due to a decrease in the concentration of protein in the serum. This may be the result of an inadequate protein intake as observed in nutritional edema, an inability to manufacture enough serum protein as seen in liver disease, or from a loss of serum protein through the kidney in nephritis.

Damage to the capillary wall sufficient to produce edema occurs locally following trauma, inflammations of the tissues, or in allergic conditions. Generalized capillary damage occurs in the acute stages of glomerulonephritis. Under these circumstances the capillary membranes are more permeable to the serum proteins which permit their escape into the interstitial fluid. With this loss of serum protein there is a decrease in the colloid osmotic pressure in the capillaries.

Obstruction of lymph flow results from inflammation or mechanical obstruction of the lymph channels. With obstruction the entire burden of the removal of fluid from the tissue spaces rests on the serum colloid osmotic pressure and the tissue pressure which are often insufficient to overcome the effects of filtration pressure and hence edema develops.

An uncommonly recognized but important cause for edema is a decrease in tissue tone. This is most frequently seen in individuals who have recently lost weight, in elderly people with atrophy of the skin and subcutaneous tissue, and in those who have formerly had edema.

## General Measures in the Management of Edema

In the management of edema the ultimate purpose is to secure a normal volume and distribution of the interstitial fluid. This may be done through a correction of the factors favoring the production of edema or if this is impossible, by so altering the other factors in fluid exchange that they can compensate for those that are disturbed.

There are certain general measures that should be instituted in all cases. Bed rest is quite important since it decreases the hydrostatic pressure in the veins and thus decreases the filtration pressure, particularly in the dependent portions of the body. A diet as low as possible in sodium, and one which contains an adequate amount of protein and preferably a neutral or acid ash, is especially helpful. Since edema fluid is composed of water and sodium chloride the limitation of sodium chloride intake will assist in preventing the further development of edema. Such a diet can be approximated at the bed side by advising the patient to avoid salt in the preparation of food, table salt, salted butter, and all other foods that may contain salt. The diet may be altered so that it has an acid ash by using large quantities of meat and eggs, and by limiting vegetables, fruits and milk. Care should be taken, however, to assure an adequate vitamin intake. With a diet sufficiently low in sodium there is no necessity for the limitation of water. Often the patient's desire for salt may in part be alleviated by the use of potassium chloride instead of sodium chloride.

## Specific Measures in the Management of Edema with Diuretic Drugs

Though in general drugs do not act directly on the factors favoring edema production, they may alter these so that edema will disappear. Diuretics may be classified according to their action into three groups: (1) those that increase the serum colloid osmotic pressure, (2) those that increase the circulation, particularly through the kidneys and thus increase the volume of glomerular filtrate, and (3) those that decrease the reabsorption of the glomerular filtrate.

Of the drugs used to increase colloid osmotic pressure, human blood serum or whole blood is the most physiological though often difficult to procure. Aldrich and Boyle[1] have reported surprising results in the treatment of lipoid nephrosis in children with the use of 24 to 65 c.c. of four times concentrated human serum. They were unsuccessful, however, in the management of other types of renal edema, notably those with hematuria.

Acacia, administered in a 6 per cent solution, has been used for the treatment of edema associated with low serum proteins but because of the complications resulting from its use, it has generally fallen into disrepute. Goudsmit and Binger,[17] however, have recently reported its effective use in all but four of forty successive adult cases with the nephrotic syndrome. They exercised extraordinary care in the preparation of the acacia and administered it in daily doses of 30 gms. for three to five days.

Hypertonic glucose or sucrose increases temporarily the colloid osmotic pressure. Glucose, however, soon passes through the capillary membrane and its effect is lost. Sucrose, on the other hand, remains in the blood stream until it is excreted by the kidney. The fact that it frequently produces kidney damage makes its use less desirable.

The drugs that act as diuretics through their ability to improve the circulation through the kidney are rather limited. Digitalis is the most important but its use as a diuretic is limited to those special cases of edema resulting from failure of the myocardium. Diuresis in heart failure resulting from digitalis administration cannot be expected to occur until the patient has received full therapeutic doses; small doses are without effect. In the absence of heart failure, digitalis is ineffective as a diuretic.[21]

The xanthine derivatives—caffeine, theobromine and theophylline—exert a diuretic effect, presumably through their ability to increase renal blood flow, thus increasing the volume of the glomerular filtrate.[19] Unfortunately, their usefulness is limited by the fact that when given in doses sufficiently large to produce an adequate diuresis, severe gastro-intestinal irritation may be experienced. The theophyllin compounds are the most effective of this group but they also produce the most disturbing gastro-intestinal irritability. It is usually necessary to give them in doses of 0.2 gm. three or four times daily to produce a diuresis. They are especially useful in arteriosclerotic heart diseases since there is evidence suggesting that in addition to a mild diuresis, they may also dilate the coronary arteries. Theobromine derivatives must be given in doses of 1.0 gm. three or four times daily before a significant diuretic response may be expected.

In general, the most effective diuretics are those that act by decreasing the reabsorption of the glomerular filtrate. Since in the normal individual the glomerular filtrate in 24 hours is about 170 liters, of which about 168.5 liters are reabsorbed by the tubules, it can be easily seen that any drug significantly decreasing the process of reabsorption will produce a copious flow of urine. Such drugs as the acid-producing salts, the potassium salts, urea, or the organic mercurial compounds, act as diuretics in this manner.

Of the acid salts, ammonium chloride is probably superior to others of the group, e.g., ammonium nitrate, ammonium phosphate, calcium chloride, etc. As ammonium chloride is absorbed from the gastro-intestinal tract the ammonium is converted into urea, leaving the chloride ion available to combine with base and thus produce an acidosis.[15] In an effort to protect the body from the acidosis produced by the addition of chloride, the kidney excretes the chloride as a salt, usually sodium chloride, and with this there is also a loss of water from the body. With the development of the acidosis induced by the excess chloride, the kidney attempts to preserve the base of the body by manufacturing ammonium from urea so that the chloride added is now excreted as ammonium chloride and the diuretic effect is lost. In general, then, the maximum diuretic effect of acid salts can be expected to occur during the first two or three days of their administration. In order to avoid the antidiuretic effect of the production of ammonium by the kidneys, the acid salts are most effectively administered in large doses of 9 to 12 grams daily for three days, then stopped for three or four days so that the ammonia production will decrease, at which time they can again be administered. Because all of these salts produce gastro-intestinal irritation, they are best given after meals in divided doses using 0.5 gm. enteric coated tablets.

Potassium salts have been advocated as diuretics chiefly because the gastro-intestinal effects are not as severe.[4,20] On the whole, however, they do not seem to be as effective as ammonium chloride and when given in doses of 9 to 12 grams, produce significant gastro-intestinal irritation.

Large doses of urea, 30 to 100 grams daily, have been employed as a diuretic[9] but because of the severe gastric upsets its use has generally been abandoned in favor of more effective and less irritating drugs.

**Probably the most effective and least irritating diuretics available at the present time are the organic mercurials. Paracelsus first introduced mercury in the treatment of dropsy in the Sixteenth Century and its use has continued in spite of the severe toxic reactions commonly experienced. In 1920[28] an organic mercurial compound, novasural (merbaphen),**

**used in antiluetic therapy, was found to exert a marked diuretic effect though mercurialism was a fairly common complication of its use. Modifications of this organic mercurial compound, however, have fewer toxic effects and with the introduction of salyrgan in 1924[6] and mercupurine in 1928[33] comparatively safe and effective diuretics have been available.**

**During the early years of the extensive use of salyrgan and mercupurine, there was considerable debate concerning their potential nephrotoxic action. Time and extensive experience with these products have demonstrated that they may be given over periods of several years without evidence of impairment of renal function or at autopsy of kidney damage.[11,24,25,34]**

Though both salyrgan and mercupurine are effective diuretics, a somewhat greater diuresis is generally observed with mercupurine than with salyrgan, possibly due to the fact that mercupurine contains theophyllin as well as the organic mercurial salt. In addition, the necrosis of subcutaneous tissue when the salt is accidentally injected outside of the vein is less severe with mercupurine. Recently the manufacturers of salyrgan have added theophyllin to the salygran compound so that it is quite similar to mercupurine.

Though these preparations may be given intramuscularly or as suppositories, they are most effective when given intravenously in 1 or 2 c.c. doses diluted with 5 to 10 c.c. of normal saline. Special care must always be taken to avoid injecting the drug into the subcutaneous tissue because severe necrosis often results. Since these drugs exert a powerful diuretic effect, it is well to use a 1 c.c. dose initially in order that the diuresis will not be too severe, since 2 c.c. produces about three times as great a diuresis.[7] Diuresis will begin within thirty to sixty minutes after the intravenous administration of the drug and will continue for twelve to eighteen hours, consequently it is best to give the drug in the morning so that the patient will not have his sleep disturbed. There have been occasional isolated reports[3,8,27,32,35] of severe reactions, usually to salyrgan, in patients with kidney disease, but they must be very rare.

Both preparations are available in the form of suppositories although the salyrgan suppository may cause rectal irritation. The mercurin suppository contains about 0.5 gm. mercury or about five times the amount in one c.c. of the intravenous preparation and produces a diuresis that is about 80 per cent as effective.[12]

Batterman and DeGraff[5] have recently reported on an oral preparation containing 80 mg. of salyrgan and 40 mg. of theophyllin which when given in five daily doses produced a diuresis equal to about 50 per cent of the diuresis following the intravenous administration of 72 per cent of the trials. It is probable that this may be effective in patients requiring frequent diuresis.

All mercurial diuretics are greatly enhanced in effectiveness when given in combination with the acid salts. Ethridge, Meyers and Fulton[10] illustrated this conclusively by comparing the urinary excretion in dogs. The average control urinary volume over a three-hour period was 45 c.c., after salyrgan it was increased to 160 c.c., and after a combination of salyrgan with ammonium chloride it increased to 480 c.c. Clinically, the most profound diuresis can be produced if the patient is given a salt-free neutral diet, ammonium chloride 9 gm. daily, and 2 c.c. of mercupurine on the third day of ammonium chloride therapy.

**The major complication with the use of the mercurial diuretics occurs as a result of too profound and too rapid a diuresis. Commonly after a diuresis, individuals without significant edema experience weakness, faintness, and at times confusion. In individuals with edema after a very profound diuresis the same symptoms may be observed and at times they may progress to coma and even death.[26] Such complications are usually easily avoided if more time is taken in eliminating the edema and if large doses of mercurial diuretics are avoided. Patients with these complaints will quickly improve when isotonic sodium chloride is administered.**

With diuresis there is a decrease in blood volume due to a loss of the plasma volume, a nearly proportional rise in the serum proteins and a decrease in the pressure in the veins.[23] With this increase in the concentration of the serum proteins there will be an increase in the colloid osmotic pressure of the capillaries. In addition, with the fall in venous pressure, it would appear

logical to expect that the filtration pressure at the venous end of the capillaries would be decreased. Both of these factors would thus permit more fluid from the tissue spaces to enter the blood stream and in turn to be excreted by the kidneys.

### The Clinical Application of Diuretics

Diuretics are used most effectively in the management of congestive heart failure in which the blood volume and the venous pressure are usually elevated. The removal of peripheral edema, pleural effusion and ascites results from a reduction of both of these factors. They are also important in the management of dyspnea[2] resulting from left ventricular failure in the absence of peripheral edema, where again a reduction of the blood volume and a decrease in the pressure in the pulmonary veins relieves the pulmonary edema.

In the nephrotic syndrome, the acid salts or measures to increase the colloid osmotic pressure may be quite helpful. Mercurial diuretics are certainly not contraindicated in these cases if there is good renal function. There is little evidence to suggest that they may be significantly harmful to the kidney.

In ascites associated with cirrhosis of the liver or carcinomatosis, diuretics have relatively little value.[13] They may be used, however, to delay the reaccumulation of fluid.

Diuretics are also helpful in decreasing the edema associated with local obstructions to lymph flow or venous return.[29] Their use is indicated in the management of ulcers of the skin over edematous tissue, since the removal of the edema is followed by a more rapid healing of the ulcers. They are sometimes useful in the management of thrombophlebitis associated with edema and inflammation of adjacent tissue. Occasionally patients with swollen edematous joints will have a decrease in joint size, an increased range of motion and less pain following loss of fluid induced by a mild diuresis such as experienced with the acid salts.

### Conclusions

The successful use of diuretics depends on an understanding of the factors favoring the production of the edema and if possible a correction of these factors. If it is impossible to correct these factors, they may be altered by diuretics to remove the edema. In order to promote adequate diuresis such general measures as bed rest, a salt-free neutral or acid-ash adequate diet should be used. The acid salts, when given in sufficiently large amounts, may produce an adequate diuresis but if a more profound one is desired, the administration of salyrgan or mercupurine intravenously is indicated.

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### EXCHANGE OF VIEWS

People do not take kindly to volunteered advice. It makes very little difference whether such advice be given by an individual or by a professional group. It may be diplomatic to express an idea in the form of a question to have it considered by others—often favorably. A statement put forward in question form suggests merely an exchange of views. Other questions are raised in the ensuing discussion. Through mutual exchange of views and the resulting discussion, working agreements can frequently be reached and reciprocal confidence established. Even when the advice is voluntarily sought and is given by an authority in the given field of competence, it is flattering to the "patient" to be treated as an intelligent person whose reaction and comment is welcomed. Even within his own acknowledged field of competence a speaker can most profitably couch his message in question form. We all like to be regarded as equals and be invited to reply.—*Journal of the Medical Society of New Jersey*, July, 1942.

# The Differential Diagnosis of Benign and Malignant Ulcerating Gastric Lesions*

By H. Marvin Pollard, M.D.
and
William C. Scott, M.D.
Ann Arbor, Michigan

H. Marvin Pollard, M.D.
*M.D., University of Michigan, 1931. M.S., University of Michigan, 1938. Assistant Professor of Internal Medicine, University of Michigan Medical School. Fellow, American College of Physicians. Member, Central Association for Clinical Research; American Gastroscopic Club; Michigan State Medical Society. Associate Member, American Gastro-Enterological Association.*

William C. Scott, M.D.
*B.S., College of Idaho, 1935. B.M., Northwestern University Medical School, 1939. M.D., Northwestern University Medical School, 1940. Resident, Department of Internal Medicine, University Hospital, University of Michigan. Member, Michigan State Medical Society.*

Livingston and Pack[13] state that in fifteen years some 600,000 persons died of carcinoma of the stomach. This is a larger mortality than has been sustained by the armed forces of the United States in the fifteen years of active warfare in which this nation has engaged. Bloodgood[2] states in regard to carcinoma of the stomach, "ulcer prevention and ulcer cure are a part of cancer prevention and cancer cure."

Certainly we want to give the surgeon the greatest opportunity to reduce the mortality in carcinoma of the stomach by making the differentiation of benign and malignant ulcerating lesions as soon as possible. That this differentiation is often very difficult is freely admitted. Our diagnostic error must be lower than the operative mortality in gastric surgery, or we might better have all patients with gastric ulcers operated upon.

It is not our purpose to discuss the more obvious diagnosis of well advanced gastric carcinomatous lesions. Neither is it our purpose to raise the question of whether or not a benign ulcer ever becomes malignant. We do attempt to define more clearly the various diagnostic features of these two lesions. Since our primary interest is in the correct diagnosis of the individual patient, we have organized the discussion in the usual sequence of diagnosis. When finished, we hope to be able to say, as does Palmer[15]: "It is important to recognize that while there is no pathognomonic sign to prove the benign nature of an ulcer the total evidence available may be sufficient to make this diagnosis highly probable, and, in the course of time, certain."

**In the beginning it should be stated that any patient with any type of persistent upper gastro-intestinal complaint who presents himself to a physicain should be given the benefit of a defensible diagnosis at the earliest possible moment. Eusterman[6] makes the statement that any patient with gastro-intestinal complaints or any patient over thirty-five with unexplained weight loss should at once be subjected to roentgenologic and endoscopic examination.**

### Factors in Diagnosis

*History.*—We recognize that the differentiation between a benign gastric ulcer and a carcinomatous ulcer by the history alone is practically impossible. There is no complaint of a patient with benign ulcer which a patient with an ulcerating carcinoma may not have. In fact, Gray[7] states that in an analysis of a large series of patients with gastric carcinomas, 50 per cent of them had histories best classified as "ulcerous." There are certain features of history, such as the *classic* history of peptic ulcer, chronicity, periodicity, and early age of original onset, which occur more commonly in benign ulcers. Conversely, there are features, such as "dyspepsia", obstruction, anemia, tarry stools, weight loss, and recent change in symptoms, which are more often associated with carcinoma. The absence, presence, or combination of any of these symptoms, does not, however, rule in or out either diagnosis.

*Physical Examination.*—Physical examination is of no assistance in differentiating early carcinoma from benign ulcer. There may be epigastric tenderness, some degree of cachexia, and even pallor in either case. An epigastric mass almost invariably points to a carcinomatous lesion

*From the Department of Internal Medicine, University of Michigan Medical School, University Hospital, Ann Arbor, Michigan.

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although occasionally it may be due to a subacute perforation of a benign ulcer.

*Laboratory Procedures.*—Routine laboratory procedures are of definite aid in diagnosis. Blood examination may serve to detect an anemia or exclude blood dyscrasias such as pernicious anemia. Occult blood in the stool is of little importance from the standpoint of differential diagnosis; this will be discussed later.

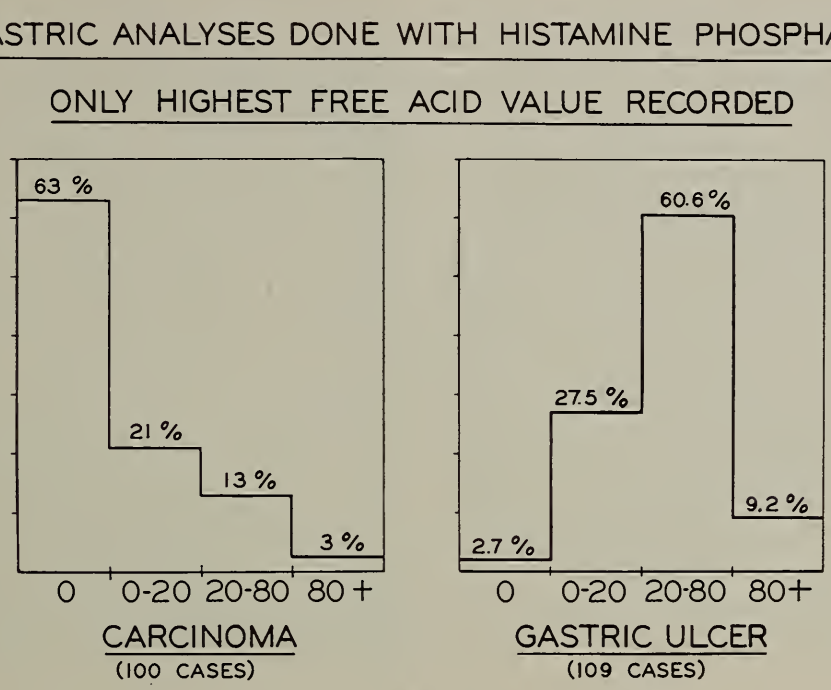



Fig. 1.

The accompanying chart (Fig. 1) illustrating results of gastric analysis in gastric ulcer and carcinoma, agrees fairly closely with similar work of Drossner and Miller,[4] Oughterson and Irons,[14] and Hurst and Venables.[11] The need for caution is emphasized here in that gastric carcinoma may be accompanied by normal acidity or even hyperacidity. It may be true that benign ulcer can exist with persistent achlorhydria; however, for practical purposes, we believe this need not be considered and that one is justified in making the generalization that an ulcerating gastric lesion in the presence of complete, persistent anacidity must be treated as a malignancy.

*X-ray Diagnosis.*—X-ray is the greatest single aid in attempting a differential diagnosis of benign and malignant ulceration of the stomach. We prefer to leave the discussion of the distinguishing x-ray features of the two lesions to the roentgenologist. It should be emphasized, however, that this differentiation is at times so difficult that no roentgenologist maintains infallibility. Our experience at the University Hospital, and the figures quoted by Drossner and Miller,[4] Walters,[18] and Eusterman[6] lead us to believe that the percentage of error on initial examinations is between 10 and 20 per cent.

The chief point of confusion in the x-ray differentiation is the group in which the roentgenologist himself frankly reports an inability to make a differentiation. Then there is the much smaller but almost always present group in which the roentgenologist is wrong in calling a benign ulcer malignant, a malignant ulcer benign, or in overlooking the lesion completely on the initial examination.

The only special feature of the x-ray examination which we wish to mention is the location of the ulcer. It is probably possible to summarize, as Palmer[15] does in his review, and say that almost all ulcers along the greater curvature are malignant and that those on the lesser curvature are usually benign, except for prepyloric ulcers, which are more often malignant.

We will mention follow-up x-ray examinations later.

*Gastroscopic Diagnosis.*—Gastroscopic examination is becoming increasingly more available and is proving a valuable adjunct in the differentiation of the two lesions we are considering. As with x-ray, it is frequently not possible to make a definite differentiation on the initial examination. Gastroscopy is of particular value in those patients in whom the x-ray examination has been unsatisfactory to either the roentgenologist, the clinician, or both. It is our own belief that, if available, gastroscopy should be employed in any patient with an ulcerating lesion of the stomach which is not obviously a carcinoma by x-ray.

After exhausting the possibilities of our initial examination, there will have been made a definite diagnosis of malignancy on a certain number of cases and immediate surgery will have been recommended for them. On the much larger remaining group there will be a tentative diagnosis with shadings of opinion ranging from questionably malignant ulcers to probably benign ulcers. These patients in whom the immediate and fairly absolute differentiation is impossible must be followed on medical treatment for a time with rigid control.

*Treatment.*—Treatment of these patients before the nature of the lesion has been established has such great diagnostic import, as well as therapeutic value, that we believe a word as to what we mean by adequate medical treatment is indicated. To us this indicates the procedure usually employed on the Medical Wards of the University of Michigan Hospital. The basic features are as follows:

1. Strict confinement to bed.
2. Progressive Sippy diet with feedings every hour on the hour.
3. Some type of antacid every hour on the half-hour. (This is usually Calcium Carbonate, alternating with magnesium carbonate; magnesium tri-silicate; or aluminum hydroxide.)
4. Tincture of belladonna.
5. Lavages as indicated.

*Length of Follow-up.*—The amount of time a patient should be followed is a controversial point. Drossner and Miller[4] mention two to three months for complete healing; MacHardy[7] suggests six weeks as the initial treatment period. Our usual procedure has been to allow for the completion of the twenty-one day progressive Sippy regime and then to check progress with x-ray and to add gastroscopy if indicated. It is also necessary to follow patients longer on modified treatment plans still with rigid control.

*Symptomatic Follow-up.*—A patient with a benign gastric ulcer should have partial relief of symptoms after a day or two on an adequate program and should approach complete symptomatic relief after a week or two. Drossner and Miller[4] report that 80 per cent of their patients with benign ulcers showed at least temporary relief from treatment. Eighty-six per cent of the 160 patients we reviewed with benign ulcer with symptomatic follow-ups available, showed at least partial relief of symptoms. The pitfall here for both the doctor and the patient is that the patient with the confusing ulcerating neoplasm with symptoms of ulceration will also have partial relief of symptoms. Walters, Gray and Priestly[19] report that 82 per cent of their patients with carcinoma of the stomach who had had ulcer management showed at least partial relief of symptoms. Ledaux[12] reports cases with complete symptomatic relief who proved to have carcinoma. We reviewed the records of twenty-one patients who eventually proved to have ulcerating gastric neoplasms who had been followed on strict medical treatment. Of these, six had complete relief of symptoms and eight had partial relief of symptoms. The accompanying table summarizes the above information. It is fair to state that while lack of symptomatic relief after treatment has diagnostic importance, the presence of such relief is apparently not of much differential diagnostic significance.

TABLE I. AT LEAST PARTIAL SYMPTOMATIC RELIEF

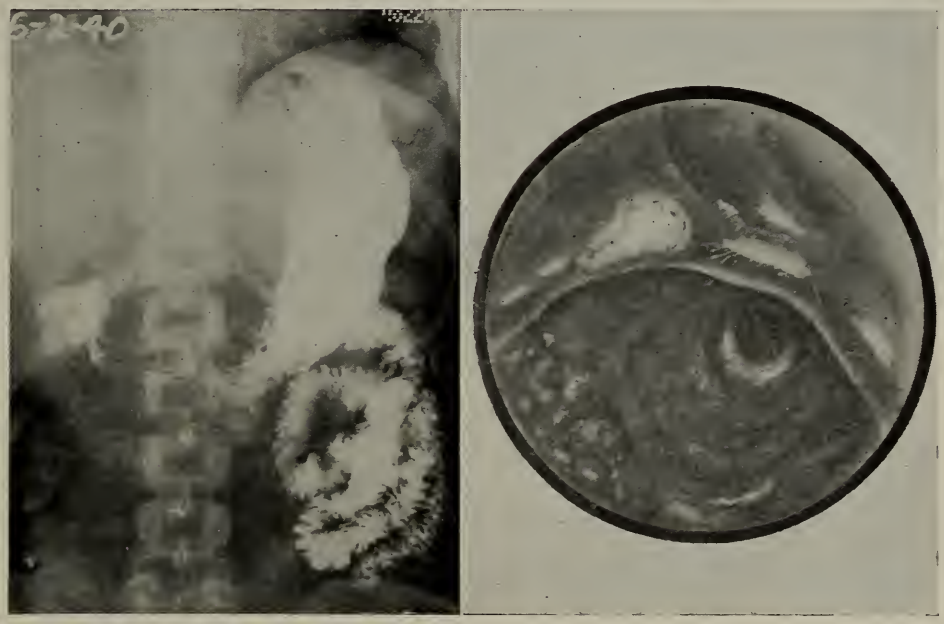
| | Ulcers | Malig. |
|---|---|---|
| U of M Hospital | 86% | 66% |
| Drossner & Miller | 80% | |
| Walters, Gray, Priestly | | 82% |

**Occult Blood in the Stool on Follow-up.—Gutman and Bertnaud[9] emphasize the grave diagnostic import of the persistent presence of occult blood in the stools. It is commonly accepted that a persistently positive guaiac reaction for occult blood in the stool may be regarded as strong evidence of carcinoma; its**

**absence, however, does not prove or eliminate a diagnosis of carcinoma.**

*X-ray Follow-up.*—Here again there is great but not absolute aid. The ulcer which either does not heal at all or increases in size on adequate treatment must, for safety's sake, be considered malignant. The ulcer which has healed completely at the time of the first follow-up examination may be presumed to be benign; it cannot, however, be dismissed from consideration. One must be sure that it remains healed; that is, the patient must be followed with clinical and x-ray control of modified treatment. The more difficult and confusing group will be, of course, that in which incomplete healing has occurred. Each extreme of this group so closely approaches one of the two groups just previously mentioned, that, practically, its treatment is the same. In the bulk of this group with further strict follow-ups one must, of course, give consideration to such factors as symptomatic relief and blood in the stools. Gastroscopy has much to offer in these patients on whom prolonged and rigid follow-ups are necessary. It is of value even if the patient has not been previously seen by the gastroscopist, and even more so if he has been.

*Eventual Result.*—We believe that every patient with an ulcerating gastric lesion should, within a reasonable length of time, be followed to the stage of complete symptomatic relief and x-ray evidence of healing before a diagnosis of benign gastric ulcer is finally tenable. This "cure" must be maintained under observation for a period of many months. These are the only rigid criteria that we advance. We consider that a conservative and common-sense evaluation of all the phases of the initial and follow-up examination is more to be desired than any more detailed and precise criteria. If the length of time of follow-up necessary for the diagnosis of benign gastric ulcer seems too prolonged, one must remember that when the diagnosis is made the patient is also cured.

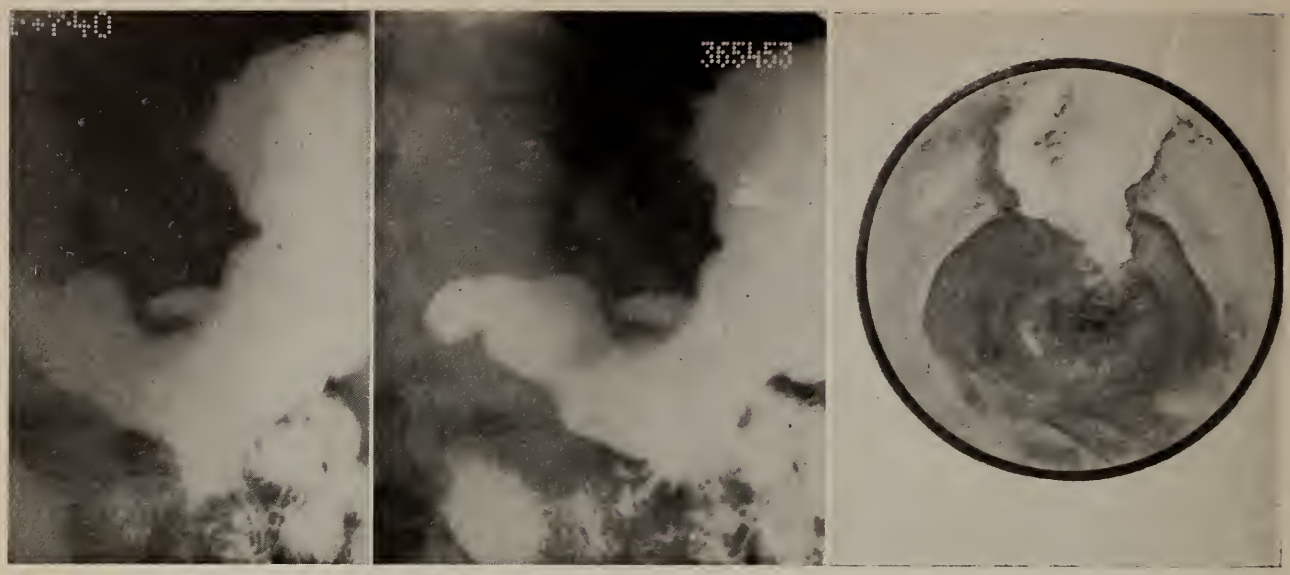


Figs. 2a and 2b.

We present three cases illustrating various principles mentioned above.

*Case 1.*—E. S. The patient was a fifty-two-year-old white woman with a five-year history of progressive epigastric distress, heartburn and a sense of post-cibal "fullness." Examination revealed only vague discomfort on deep palpation in the epigastrium. Routine laboratory procedures were negative; gastric analysis was not done. An upper gastro-intestinal x-ray on June 2, 1941, was reported as showing no abnormalities (Fig. 2A). On the same date the patient had been seen by the gastroscopist who reported a shallow gastric ulcer with nodular tissue extending to the pylorus which he interpreted as carcinoma or a severe degree of hypertrophy (Fig. 2b). He advised operation.

The patient was operated on June 20, 1941, and, in spite of the fact that the surgeon found no evidence of abnormality, a partial resection was done. The



Figs. 3a and 3b.

pathologist reported a medullary carcinoma in the mucosa not extending to the muscularis mucosa. Histologically Grade III. There were some very superficial ulcerations.

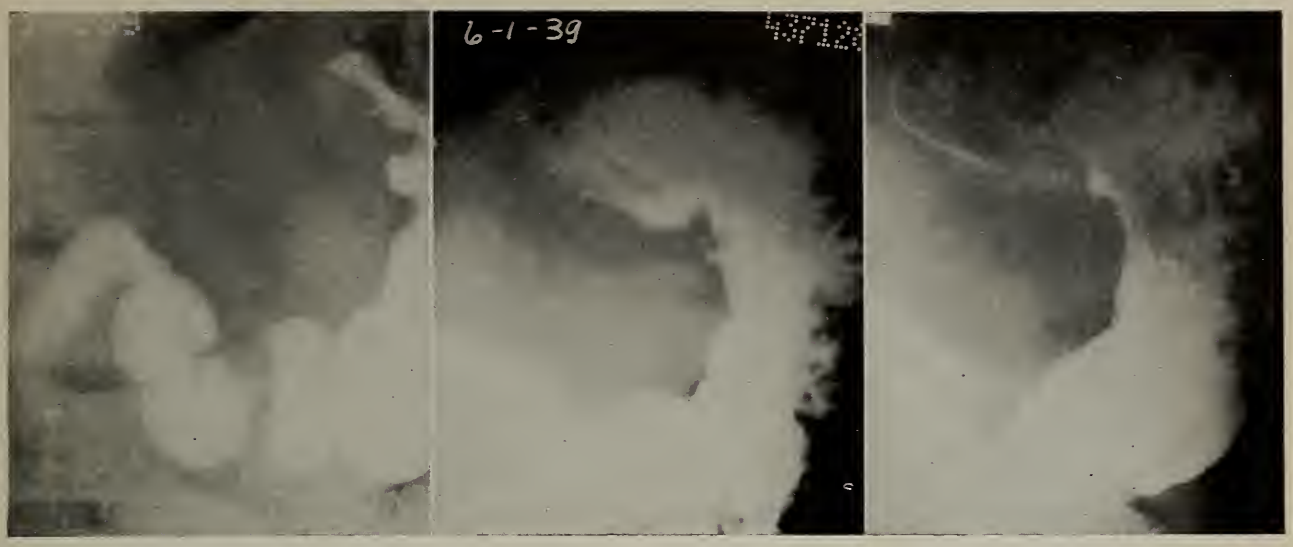
This then illustrates a patient with an early carcinoma which was missed completely by x-ray but which was diagnosed by gastroscopy and operated much earlier than would have been possible without complete diagnostic studies.

*Case 2.*—S.E. was a white man, aged thirty, who had been seen in 1935 with a diagnosis of aerophagia. He was seen again September 4, 1940, with complaints of vague upper abdominal discomfort, before and after meals, and belching after fatty foods. Complaints had been present on several occasions but had disappeared without treatment. A tentative diagnosis was made of gastro-intestinal neurosis and the patient was discharged with Amphojel. He returned two months later stating that his complaints had been completely relieved for a time but had now reappeared to a lesser degree than previously. On this admission examination was negative. No anemia was found. Thirty-eight degrees of free hydrochloric acid 15 minutes after histamine was reported. Stool examination revealed positive guaiac test. The patient was submitted to gastro-intestinal x-ray on November 7, 1940, and gastroscopy on November 19, 1940 (Figs. 3a and 3b). It was the opinion of the roentgenologist and the gastroscopist that this prepyloric ulcer was probably malignant.

A partial gastric resection was done on November 29, 1940. The pathologist reported an area of adenocarcinoma in the edge of an ulcer with multiple metastases to the regional lymph nodes.

Here then is illustrated the importance of complete diagnostic work-up. Certainly routine history, examination and laboratory procedures gave little indication of the severe pathology present.

*Case 3.*—A. B. was a white man, aged forty-five, who complained of a two-year history of burning epigastric pain before meals, relieved by food or soda, and the occurrence of one small hematemesis. Examination revealed epigastric tenderness. Laboratory examinations revealed no anemia and forty-five degrees of free hydrochloric acid thirty minutes after histamine. Throughout the entire course, an occasional positive guaiac reaction was noted on stool examination. Because of the hematemesis the patient was treated for one month before upper gastro-intestinal x-ray was done on March 1, 1939 (Fig. 4A). At this time the patient had no symptoms, but on gastroscopy a large posterior wall ulcer was observed with irregular areas about the crater suggesting inflammatory changes or neoplasm. Between this time and October 14, 1940 nine x-ray examinations were done. On the film of June 1, 1939 (Fig. 4B) marked reduction in the size of the ulcer was noted and two months later no ulcer could be conclusively demonstrated. At that time the patient had no symptoms. In November, 1939, symptoms recurred and ulcer was again demonstrated in the x-ray. By February, 1940, the symptoms had disappeared and the ulcer was much smaller. From this time until October 14, 1940, symptoms were occasionally present and there was only slight change in the ulcer. The examination of October 14, 1940 (Fig. 4C) revealed an ulcer which had changed little in size. At that time gastric analysis revealed only ten degrees of free hydrochloric acid in one of four specimens after histamine. On October 18, 1940 the patient was submitted to total gastrectomy and a poorly differentiated carcinoma infiltrating the entire cardia and extending into the esophagus was found.




Figs. 4a, 4b, and 4c.

We feel this patient was followed on medical treatment far beyond the time when a common sense evaluation of all the available information would have indicated the wisdom of operation. It is of great importance to bear in mind the complete symptomatic relief and almost complete x-ray healing observed in this patient with a carcinoma.

## Summary

In summary, the differentiation of benign and malignant ulcers of the stomach is extremely difficult. It requires the full coöperation of the clinician, the laboratory, the roentgenologist, often the gastroscopist, and always the patient.

1. Helpful inferences may be drawn from the history but no absolute opinion is at all possible from it.

2. Physical examination is not usually helpful.

3. Gastric analysis offers absolute aid in that an ulcerating gastric lesion in the presence of persistent achlorhydria must be regarded as malignant.

4. The original x-ray examination, while of the greatest importance, cannot always establish the diagnosis accurately.

5. Gastroscopic examination is frequently a valuable adjunct, but again is not infallable.

6. Careful follow-up examination, after a period of carefully supervised medical treatment, is of greatest importance.

7. Persistent occult blood in the stool must be regarded as highly suggestive of malignancy.

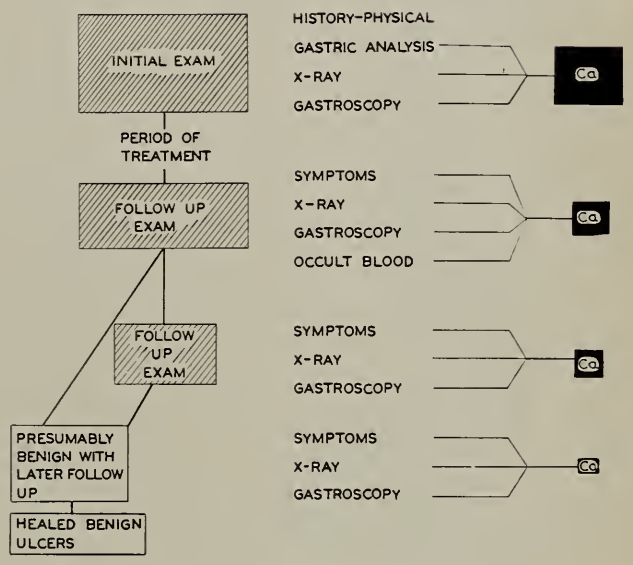



Fig. 5.

8. Anything but *complete* symptomatic relief is of no value as a differential point, and this may occur in carcinoma.

9. Complete x-ray healing is highly suggestive of a benign lesion but can occur in a malignant one. It is not unusual for partial x-ray healing to occur in malignant ulcers.

10. Gastroscopic follow-up will often add to the value of x-ray follow-up.

In Figure 5 we attempt to present graphically the general plan of diagnosis and follow-up examinations necessary to finally make this differentiation.

Finally, the only safety lies in thorough investigation at every stage of the diagnostic procedure, and finally in following the patient to com-

plete sustained healing. In other words, the eventual, final diagnosis of benign gastric ulcer implies that there is no longer an ulcer.

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### PUT UP, OR SHUT UP!

"The introduction of the 'Hampton Bill' in the session of the legislature just closed signalizes the end of the period of grace in which," says the *Westchester Medical Bulletin*,* "the medical profession has been permitted to carry on a dignified debate as to whether it should or should not give unreserved support to medical expense insurance under medical auspices."

Due to the common-sense decision of the House of Delegates at its 1942 Annual Meeting, such unreserved support for all three of the plans operating in the State of New York was obtained. The reference committee of the House of Delegates reported "that the situation is serious and the emergency genuine." It specifically recommended:

"1. That all county medical societies be contacted and assisted and immediately urged to coöperate with approved plans.

"2. That the State Medical Society through its subcommittee give all aid at its command to help these county medical societies succeed with this work.

"3. That the principles of nonprofit medical insurance be reëmphasized as adopted in the 1941 report.

"4. That intense energy be used to obtain a larger number of subscribers among the low-income groups.

"5. That hospitalization and medical care plans remain independent of each other.

"6. That the members of this House shall act as individual spokesmen to interest the *Comitiæ Minoræ* and Economic Committees of the component medical societies in nonprofit medical insurance . . ."†

Let us get down to a little plain speaking on this subject. The directions of the House of Delegates as set forth above are direct and simple. Boiled down, they say: *Get busy. This means you!*

You may or may not have attended the meetings of the House. If you did, you heard the report and have no excuse for not getting busy, if you have not already done so. If you didn't attend, but can read, you saw in this JOURNAL, in the issue of June 1, an editorial "Now for Action," which was based on the cited directions of the House of Delegates and which urged you to get behind your regional nonprofit medical expense indemnity plan *and push.*

There is only one way in which the membership of the Society can be told the facts of life at reasonable expense, and that is through the printed word—in this case, your JOURNAL. If you don't read it, the entire profession of the state may be placed in jeopardy; if you do read it, but do nothing to comply with the specific instructions of your own legislative body, then, no matter what happens, the medical profession can blame nobody or anything but its own indifference.

Put up, or shut up! "The 'Hampton Bill' was introduced at the direct request of the Insurance Department and would almost certainly have been adopted by the legislature if the Insurance Department had not later requested that it be held over for one year."* Of that year, seven months have now elapsed. The sands are running out. What will you do about it?

If *you* are concerned with this problem, the first logical step is to become a professional member of your regional plan:

1. The Medical Expense Fund, Brooklyn, New York.
2. Medical and Surgical Care, Inc., Utica, New York.
3. Western New York Medical Plans, Inc., Buffalo, New York.

When you have done so, your next opportunity to make your influence felt is to bring the plan to the attention of your patients with the recommendation "that they request their employers, trade associations, and other groups with which they are affiliated to avail themselves to this modern type of protection against medical economic catastrophes."* It's *your* plan; it's *our* responsibility; *you* have to make it work. If you don't, and the time is growing short, you may expect the Hampton Bill or a similar one to be passed by the legislature next year whereby the services of physicians will become merely incidental to hospitalization. This is plain speaking: Nobody will do it for you. Do it yourself, and do it now. Put up, or shut up!—*New York State Journal of Medicine,* July 1, 1942.

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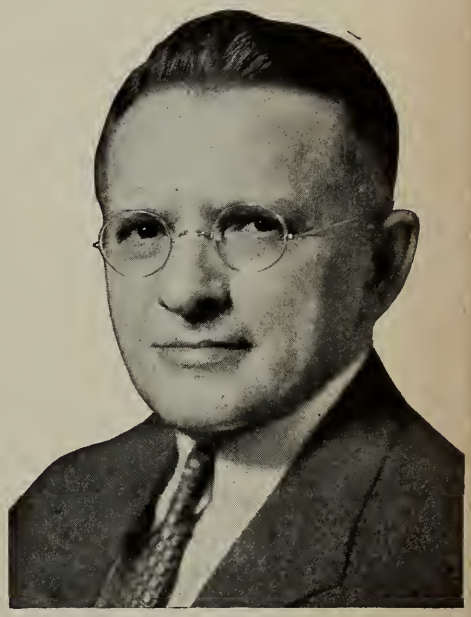
*Westchester Med. Bull., 10:5, (May 1), 1942.

†Minutes, House of Delegates, N. Y. State Jour Med., 42: 1283, (July 1) 1942.

*N. Y. State J. Med., 40: No. 13, 983 (July 1) 1940; ibid. 41: No. 13, 1335, (July 1) 1941.

President's



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# FAREWELL!

As my year's term of service draws to a close, at the 77th Annual meeting in Grand Rapids, we look upon a world strangely different from that of September, 1941. At that time the nation's program of preparedness was under way; now we are in the war to the full extent of our resources.

Our members, following the worthy tradition of previous wars, have responded nobly. This fall, practically every physician in Michigan will be found engaged in doing his share in the all-out war effort of the nation. To each of you, I extend greetings and wishes for good luck, confident in the belief that when this war is over, the world will be a better place to live in.

Henry R Carstens

President, Michigan State Medical Society

# EDITORIAL

## GENERAL PRACTITIONERS AT MSMS MEETING

■ An unusually attractive program of outstanding speakers has been arranged for the General Practice Section, Friday morning, September 25, 1942, under the chairmanship of Arch Walls, M.D., of Detroit.

**The Michigan State Medical Society has been a leader in organizing a special section for the general practitioner in the national association as well as in the state society. In previous years the physician whose practice is not limited has been forced to attend a section in which technical papers, particularly suitable for those who are limiting their work, are emphasized. In many instances the material has not been too practical and worth while to the general practitioner.**

It is significant that about three-quarters of the members of the Michigan State Medical Society do not limit their practice and are not interested in purely technical discussions. This group, which is the basic structure of organized medicine, should register and attend their particular section meeting. During this war period the value of practical information is especially desirable. Each part of the program seems to promise no wasted time and every active moment will be full of real digestible meat.

The section organizers emphasize the fact that this is the general practitioners' first opportunity to give aid toward a permanent organization for themselves. There will probably be discussed, in the business meeting, a move to obtain better representation of the general practitioner in the hospitals. The Section officers are offering an opportunity which must be seized now or it may be lost forever.

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## YOUR HELP IS NEEDED

■ The National Physicians' Committee, whose activities were approved by the House of Delegates of the AMA at the June meeting, is asking physicians to interview congressional candidates on two proposals vital to organized medicine:

a. Status and Rights of the Profession.

"If I am elected Congressman on November 3, 1942, and an amendment or amendments to the Sherman Antitrust law are introduced into the House of Representatives exempting the professions—engineers, lawyers, doctors, dentists, architects, etc.—from the 'trade and commerce provisions' of the Antitrust laws, and giving professional organizations the rights which are now accorded to labor unions, or other legislation is proposed which is designed to accomplish the same result,

"I will or I will not vote for such exemptions."

*(To be signed by the congressional candidate)*

b. Compulsory Hospitalization, Sickness or Health Insurance.

"If I am elected Congressman on November 3, 1942, and amendments to the Social Security Act or other legislation are introduced into the House of Representatives providing for payroll deductions or other taxation to pay for hospital care costs, compulsory health or sickness insurance—or legislation the effect of which would be authorization for providing medical care by laymen or by others than duly qualified Doctors of Medicine,

"I will or I will not vote against the passage of such legislation."

*(To be signed by the congressional candidate.)*

Five thousand doctors in 435 districts have been asked to present this request to the representatives and senators to determine the status and rights of the profession. To achieve this end it will be necessary for every physician to lend his influence that assurance of the best medical service may be guaranteed to the people.

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## STRIKES AND ABSENTEEISM— A NEW INFECTIOUS DISEASE

■ Franklin Top did not include this communicable disease in his new book but it is just as real a menace to the health of the nation as typhus or scarlet fever and just as contagious. The physician's responsibility in its control is important and grave. His loyalty to the worker is sincere and yet this realization that loss of production is serious and the complications are

widespread and often fatal, demands that his trained mind and knowledge use its most to protect his patient even though the remedy may not be tasteful to him. The physician is not going to strike or lay-off. He is going to continue, just as he has done for many years, to serve the misled patient even when the landlord and the butcher refuse further credit. The worker knows that. The physician by his example and kind advice may demonstrate the worth-while value of service as the great reward in itself. When service is seen as its own reward then and only then will the worker achieve his deserved high place in world planning.

## DISCUSSION CONFERENCES

■ THE prediction made in THE JOURNAL of September, 1941, that the discussion conferences at the Annual Meeting of the Michigan State Medical Society would be a most valuable innovation certainly proved correct. This year the conferences have been improved and enlarged. Twenty-one of the world's best qualified specialists will present their views and findings to you at a public address on these days and then be available for questions at the close of the afternoon session.

All meetings will be held in the Civic Auditorium and Pantlind Hotel in the "Furniture Capital of America," the second city of Michigan.

If you are interested in your medical progress you must attend the Seventy-seventh Annual Meeting of the Michigan State Medical Society, September 23, 24, and 25, 1942—the biggest three days in medicine that Michigan has ever known.

## PROCUREMENT AND ASSIGNMENT

■ **P. R. Urmston, M.D., of Bay City, Chairman of the Medical Preparedness Committee of the Michigan State Medical Society, and now officially listed as Michigan Consultant to the War Manpower Commission, recommends that every physician in Michigan under forty-five years of age should apply for a commission in the medical corps of the United States armed forces and have his physical examination. Only in this manner is it possible for the Procurement and Assignment Committee officially to establish as essential those doctors of medicine who are not available to the armed forces because of civilian necessities. In that manner deferment under Selective Service is assured.**

**If this procedure is not followed the physician is subject to induction by his local draft board.**

## THE SEARCH FOR UNITY

If we are to have a durable peace after the war, if out of the wreckage of the present a new kind of cooperative life is to be built on a global scale, the part that science and advancing knowledge will play must not be overlooked. For although wars and economic rivalries may for longer or shorter periods isolate nations and split them up into separate units, the process is never complete because the intellectual life of the world, as far as science and learning are concerned, is definitely internationalized, and whether we wish it or not an indelible pattern of unity has been woven into the society of mankind.

There is not an area of activity in which this cannot be illustrated. An American soldier wounded on a battlefield in the Far East owes his life to the Japanese scientist, Kitasato, who isolated the bacillus of tetanus. A Russian soldier saved by a blood transfusion is indebted to Landsteiner, an Austrian. A German soldier is shielded from typhoid fever with the help of a Russian, Metchnikoff. A Dutch marine in the East Indies is protected from malaria because of the experiments of an Italian, Grassi; while a British aviator in North Africa escapes death from surgical infection because a Frenchman, Pasteur, and a German, Koch, elaborated a new technique.

In peace, as in war, we are all of us the beneficiaries of contributions to knowledge made by every nation in the world. Our children are guarded from diphtheria by what a Japanese and a German did; they are protected from smallpox by an Englishman's work; they are saved from rabies because of a Frenchman; they are cured of pellagra through the researches of an Austrian. From birth to death they are surrounded by an invisible host—the spirits of men who never thought in terms of flags or boundary lines and who never served a lesser loyalty than the welfare of mankind. The best that every individual or group has produced anywhere in the world has always been available to serve the race of men, regardless of nation or color.—RAYMOND B. FOSDICK: The Rockefeller Foundation—A Review for 1941.

# WHAT ABOUT GRAND RAPIDS?

A Busy Thoroughfare in Grand Rapids

GRAND Rapids, the mecca for Michigan Medicine September 23, 24 and 25, has an interesting history with its rapid and distinctive industrial development. In size, it is the second city of this state. The annual conventions of the Michigan State Medical Society have become so large that only two cities in the state have convention space and hotel facilities sufficient to accommodate the meetings, as well as exhibits which have become a most important feature of the annual meetings within recent years. The evolution of scientific medicine has caused a great development by way of invention of diagnostic and treatment equipment as well as refinement in drugs and foods intended for the sick.

Grand Rapids has an interesting history. The name is descriptive of the rapids of the Grand River. A little over a hundred years ago, one hundred and sixteen, to be exact, Louis Campau, a French pioneer, established a trading post there, purchasing the ground for ninety dollars. A second pioneer was Lucius Lyon, who, having surveyed the site for the government, had intended to buy it for himself. He was forced to purchase it, however, from Campau at a much higher price. It is said that this transaction resulted in an estrangement between the two pioneers, the effect of which is seen in the present peculiar layout of the downtown district of the city. The two pioneers disagreed as to the name of the locality. Campau insisted on the name "Grand Rapids," while Lyon wanted it called "Kent" after a chancellor of New York State. The name of Chancellor Kent, however, is perpetuated in the name of the county. All this is a matter of history.

Located in the midst of a lumbering district, from the beginning prosperity was assured to the town. Perhaps for more than anything else, Grand Rapids today is preëminently known throughout the nation as the Furniture City of America, just as Detroit is known throughout the world as the great automobile center.

Grand Rapids is characterized by the diversity of its industrial operations, best known of which is furniture manufacturing for which it is famous the world over. There are more than 500

manufacturing establishments in the city, producing more than 2,500 different products which are grouped mainly into woodworking, metalworking and miscellaneous. In the last group are several large subdivisions including graphic arts, food products, paper products, gypsum mining and products, chemicals and textiles.

The metal industry vies for importance with the woodworking industry. A large number of plants are devoted to producing a wide variety of metal products including woodworking and metalworking machinery; hardware for automobiles, furniture, refrigerators, plumbing, and building; automobile bodies and trailers and parts. This industry which employs thousands of men is one of the most rapidly developing industrial groups and is a very important factor in the economic well-being of the community.

Also Grand Rapids contains the largest sticky fly paper factory in the world, the largest producers of school, church and theater seats, carpet sweepers, metal belt lacers, gypsum products, window sash pulleys, paper boxes, automatic musical instruments and plumbing and bathroom fixtures. In order to indicate the versatility of Grand Rapids manufacturing, a short list of a variety of products made there might prove interesting. Bodies for several nationally known makes of automobiles are built here. Its other contributions to the automotive world include nationally known tires and bumpers, as well as metal dash boards, hardware, refinements for car interiors, seat and back springs, and other parts and minor accessories.

Grand Rapids stands high as a printing center. There are some 60 plants in the city, and among them are producers of photoengraving, lithography, printing and very high-grade advertising literature.

The Pantlind Hotel

The inhabitants of the city number 176,000. There are 2,560 retail establishments, 80 schools, 150 churches, 11 hotels and 27 theaters. Grand Rapids is a city with a personality. It is essentially a city of homes, ministered to spiritually and culturally by the number of churches and schools mentioned. The material wants of the inhabitants are supplied by four large departmental stores and scores of small smart shops. It seems scarcely necessary to comment on Grand Rapids as a convention city, since the fact is already known to the medical profession of the state which has met there a number of times and has partaken of the hospitality of the city. The medical profession of Grand Rapids is progressive and equal in ability to that of any city in the continent.

Blythefield Country Club, Grand Rapids

# The 77th Annual Meeting
## Grand Rapids — 1942

## ANNUAL MEETING INFORMATION

### DIRECTORY

Headquarters and Registration....Civic Auditorium
Telephones: 9-1732 and 9-1475
Hotel Headquarters.....Pantlind Hotel
Telephone: 9-7201
Scientific and Technical Exhibits..Civic Auditorium
General Assemblies, Black and Silver Ballroom
Civic Auditorium
Telephones: 9-1547, 9-1716, 9-1738
Publicity, Press Room, Room A..Civic Auditorium
Telephone: 9-7201
MSMS Hospitality Booth, Exhibit Floor.....
Civic Auditorium
Woman's Auxiliary, Headquarters and Registration .....Pantlind Hotel

* * *

### MEETING ROOM DIRECTORY

**Pantlind Hotel**

Swiss Room—Southwest corner of hotel. Use corridor from lobby.
Colonial Room—Southwest corner of lobby
Ball Room—West of lobby—up grand staircase
Grill Room—Northwest corner (next to the Pub)
Parlor A-B—Mezzanine, directly east of elevators.

**Civic Auditorium**

Black and Silver Ballroom—West side of building *(through exhibits)*
Rooms B-C-D—East side of building, to right of entrance
Room F—South of Black and Silver Ballroom, off lobby *(through exhibits)*
Room G—Above Room F *(through exhibits)*
Red Room—Southwest corner, *second floor,* next to Room F *(through exhibits)*
Directors' Room—Southeast corner, *second floor (through exhibits)*

* * *

**Register—Exhibit Floor,** Civic Auditorium, Grand Rapids—as soon as you arrive.

Hours of Registration daily 8:30 a.m. to 5:30 p.m. on Tuesday, Wednesday and Thursday, September 22-23-24, and from 8:30 a.m. to 3:30 p.m. on Friday, September 25.

Admission by badge only, to all scientific assemblies and section meetings. Monitor at entrance.

**BRING YOUR MSMS OR AMA MEMBERSHIP CARD TO EXPEDITE REGISTRATION.**

**No registration fee to members of the Michigan State Medical Society.**

* * *

**Physicians, not members,** if listed in the American Medical Directory, may register as guests upon payment of $5.00. This amount will be credited to them as dues in the Michigan State Medical Society FOR THE BALANCE OF 1942 ONLY, provided, they subsequently are accepted as members by their County Medical Society.

* * *

**Guests**—Members of the American Medical Association from any state, or from a province of Canada, and physicians of the Army, Navy and U. S. Public Health Service are invited to attend, as guests. Please present credentials at Registration Desk.

Bona fide doctors of medicine serving as interns, residents, or who are associate or probationary members of county medical societies, if vouched for by an MSMS Councilor or the president or secretary of the county medical society, will be registered as guests. Please present credentials at Registration Desk.

* * *

**Telephone Service**—Local and Long Distance telephone will be available at entrance to Black and Silver Ballroom in the Civic Auditorium, as well as in the Pantlind Hotel.

**In case of emergency,** doctors will be paged from the meetings by announcement on the screen.

During meetings call 9-1547; 9-1716; 9-1738.

At other hours, call the Pantlind Hotel, 9-7201, or the Registration Desk in the Exhibit Hall, Civic Auditorium, 9-1732 or 9-1475.

* * *

**Checkrooms** are available in the Pantlind Hotel, and in the lobby of the Exhibit Hall, Civic Auditorium.

* * *

**The progressive Doctors of Medicine** of Michigan will be present at the annual meeting of the Michigan State Medical Society, September 23, 24, 25 in Grand Rapids.

### SPECIAL EXHIBIT AT MSMS MEETING ON "THE WAR EFFORT"

Sponsored by the Procurement and Assignment Service, and Medical Officer Recruiting Board.

The Procurement and Assignment Service of Michigan, which exists for the benefit of (a) the civilian population; (b) the protection of physician; and (c) the aid of the armed forces, determines those physicians who are essential to the health of the community. All others are deemed available for military service. Since May 1, 1942, recruitment of physicians for the U. S. Army has been carried on by the Medical Department Officer Recruiting Board of Michigan. All physicians under the age of 45 now apply for Army commissions through the Medical Recruiting Board, 320 Federal Building, Detroit. Applicants who are physically qualified are commissioned as First Lieutenant or Captain. A few highly qualified applicants over the age of thirty-seven are referred to the Surgeon General for the grade of Major.

The Procurement and Assignment Service and the Medical Recruiting Board have worked together in close coöperation so that no physician declared essential is commissioned.

**Acknowledgment**—The Michigan State Medical Society sincerely thanks the following friends for their sponsorship of lecturers at the 1942 meeting:

Children's Fund of Michigan, sponsor of Clifford G. Grulee, M.D., Evanston, Illinois.

Michigan Department of Health, sponsor of Philip F. Williams, M.D., Philadelphia.

* * *

**Essayists are very respectfully** requested not to change time of lecture with another speaker without the approval of the General Assembly. This request is made in order to avoid confusion and disappointment on the part of the audience.

* * *

**Scientific and Technical Exhibits**—116 displays—will open daily at 8:30 a.m. and close at 6:00 p.m. with the exception of Friday when the Exhibits will close at 3:00 p.m. Intermissions to view the exhibits have been arranged during the morning and afternoon General Assemblies.

PLEASE REGISTER AT EACH BOOTH

* * *

**Wm. A. Hyland, M.D.,** Metz Building, Grand Rapids, is General Chairman of the G. R. Committee on Arrangements for the 1942 MSMS Annual Meeting.

* * *

**Postgraduate Credits** are given to every member who attends the Postgraduate Conference on War Medicine, the annual meeting of the Michigan State Medical Society, Wednesday, Thursday, Friday, September 23, 24, 25 at Grand Rapids.

* * *

**Press Relations Committee**—W. B. Mitchell, M.D., Grand Rapids, Chairman; Lynn A. Ferguson, M.D., Grand Rapids; J. R. Venema, M.D., Grand Rapids.

* * *

**Parking**—Do not park your car on the street. Convention parking near the Civic Auditorium will be marked off with suitable sidewalk signs. The Grand Rapids Police Department will issue courtesy cards (at Registration Desk) for out-of-town autos, which give parking privileges but do not apply to metered spaces. Nearby parking lots are available, as well as convenient indoor parking facilities. The indoor parking rate at the Pantlind Garage is 75c for twenty-four hours, and 25c for each eight hours (or portion) thereafter. This new garage is close to the Pantlind Hotel and the service is more superior than in the past.

The MSMS Delegates will convene Monday, September 21, at 6 p.m. for the Speaker's Reception, Swiss Room, Pantlind Hotel, and at 7:00 p.m. for the Delegates' Dinner, Colonial Room, Pantlind Hotel. The First Meeting of the House of Delegates will be held in the Ballroom, Pantlind Hotel, at 8:00 p.m.

The Second Meeting of the House of Delegates is scheduled for Tuesday, September 22, at 10:00 a.m.; and the Third Meeting is scheduled for Tuesday, September 22, at 8:00 p.m.

All MSMS members are invited and urged to attend the meeting of the House of Delegates.

**COUNTY SECRETARIES' CONFERENCE**

Furniture Club, Pantlind Hotel

Wednesday, September 23, 1942

LUNCHEON—12 to 1:30 P. M.

D. C. Bloemendaal, M.D., Zeeland, Presiding

PROGRAM

1. "The Michigan Picture in Medicine (10 min.)
   L. Fernald Foster, M.D., Bay City
   Secretary, Michigan State Medical Society

2. "Procurement and Assignment" (30 min.)
   Lt. Colonel Sam F. Seeley, M.C.,
   Exec. Officer, Procurement & Assignment
   Service, Washington, D. C.

**All Members of the State Society will be Welcomed at this Conference**

**Michigan Medical Service.** The Third Annual Meeting of the Michigan Medical Service Membership will be held Tuesday, September 22, at 2 p.m. in the Ballroom of the Pantlind Hotel.

Members of Michigan Medical Service are all the members of the MSMS House of Delegates plus the Directors of Michigan Medical Service. The Officers' Reports and Election of Directors will be on the Agenda of the Annual Meeting.

* * *

Andrew P. Biddle, M.D.

**Andrew P. Biddle, M.D.,** Patron of Postgraduate Medical Education in Michigan, after whom the Biddle Oration of the Michigan State Medical Society has been named.

* * *

**Guest Golf**—The Chairman of the Grand Rapids Commitee has arranged that MSMS members may play at all country clubs in the Grand Rapids District upon presentation of MSMS Membership Card and payment of greens fees.

Due to the war, the regular MSMS Golf Tournament for 1942 has been cancelled.

* * *

**THE 116 EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P.M. ON WEDNESDAY AND THURSDAY; UNTIL 3:00 P.M. ON FRIDAY**

DEMONSTRATING THE KENNY METHOD

Sister Elizabeth Kenny of Australia will speak on Poliomyelitis at the MSMS annual meetling, Friday, September 25.

Advances in the treatment of Poliomyelitis by means of early physical therapy will be shown daily in the scientific exhibit of the National Foundation on Infantile Paralysis, Inc. (Booth No. I).

**AT THE POSTGRADUATE CONFERENCE ON WAR MEDICINE**

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**Seven General Assemblies**, Wednesday, Thursday, Friday, September 23, 24, 25.

**The Eight Section Meetings** will be held on Friday morning only, September 25. Luncheons will be sponsored by the Sections on

1. Dermatology and Syphilology
2. Obstetrics and Gynecology
3. Ophthalomology and Otolaryngology.

* * *

**Public Meeting**—The evening assembly of Wednesday, September 23—President's Night—will be open to the public. Invite your patients and other friends to this interesting meeting. The program (complete on page 773) is highlighted by:

| | |
|---|---|
| 8:00 p.m. | President's Address<br>Induction of President-elect |
| 9:00 p.m. | Biddle Oration (Col. Geo. F. Lull, M.C.) |
| 10:00 p.m. | Entertainment and dancing. |

* * *

**The Committee Organization Luncheon**, a meeting of MSMS committee chairmen appointed by President-elect H. H. Cummings, M.D., to serve during the year 1942-43, wil be held on Wednesday, September 23, 12:30 p.m. in the Furniture Assembly Room, Pantlind Hotel.

* * *

**The Michigan Branch of the American Medical Women's Association** announces the following program for its State Meeting:

**September 22**

12:30 p.m.—Luncheon, Pantlind Hotel

6:30 p.m.—Dinner and Election of Officers, Pantlind Hotel

Topic: "War Service of American Women's Hospitals," Helena T. Ratterman, M.D., Cincinnati, Ohio.

Mildred C. Williams, M.D., Detroit, is president of the Michigan Branch, American Medical Women's Association.

**The Michigan Branch of the American Academy of Pediatrics** will hold a dinner in the Pantlind Hotel, Thursday evening, September 24, 6:00 p.m. Frank VanSchoick, M.D., 419 W. High Street, Jackson, is in charge of arrangements.

You Are Cordially Invited
to Visit the
Michigan State Medical Society

**HOSPITALITY BOOTH**

Exhibit Hall—Civic Auditorium
Stop and Chat with Your State Society Officers

**Medical Secretaries' Meeting Cancelled**—The annual Symposium on "The Business Side of Medicine," usually held in connection with the MSMS annual meeting every year, will not be held in 1942, due to the difficulty in obtaining outstanding speakers for the program during the war.

* * *

**Register at Each Booth**—There is something NEW for you in the interesting and large exhibit (116 booths). Stop and show your appreciation of the exhibitors' support in making the Convention possible.

**THE WOMAN'S AUXILIARY**
**to the Michigan State Medical Society**
**Presents an Attractive Program to which**
**Every Physician's Wife is cordially invited.**

# SCIENTIFIC EXHIBITS

**I The National Foundation for Infantile Paralysis, New York, N. Y.**
**"Progress Against Infantile Paralysis"**

This exhibit will present some of the recent advances in the identification of the virus in epidemiology and in treatment by means of early physical therapy.

**II Michigan Allergy Society**
**"Hay Fever, Asthma, and Allied Disease"**

An exhibit featuring ordinary plants and pollens causing rose fever and hay fever. Also exhibits of various types of dust responsible for year-round asthma, naso-motor-rhinitis, and chronic sinusitis. Also a demonstration of air-borne particles from insects as a cause of hay fever and asthma. Animals naturally sensitized to ragweed pollin, demonstrating typical asthma (human type) on exposure to these pollens, will be displayed.

**III American Medical Association, Chicago, Ill.**
**"Amputations"**

Exhibit displaying the work of the consultants on artificial limbs of the Council on Physical Therapy. Preferred sites of election for amputations, the best stump for the most useful prosthesis and acceptable methods for treatment of the stump are considered. Manikins are displayed illustrating satisfactory stumps. A pamphlet will be distributed, dealing with the important aspects of the exhibits.

**IV Cardiac Club of Detroit**
**"Studies in Heart Disease"**

This exhibit will be composed of charts summarizing clinical investigations on cardiac problems, several case reports, and a series of colored lantern slides illustrating pathological features of various types of heart disease.

**V Wayne University College of Medicine, Detroit**
**"Epidemiology of Tularemia"**

The exhibit is intended to show the incidence and distribution of tularemia in Michigan, to depict the natural hosts and vectors of tularemia and the most common methods by which man contracts the disease.

**VI Highland Park General Hospital, Highland Park, Michigan**
**"Peptic Ulcer Therapy with an Anterior Pituitary Preparation"**

The discovery and development of the concept of an anterior pituitary splanchnotropic preparation is illustrated by the results of experimental work in pigeons. The application of this principle to the prevention of experimental ulcer in dogs is delineated.

Clinical evidence is presented of the therapeutic efficacy of the anterior pituitary splanchnotropic factor in the prevention and treatment of peptic ulcer in the human.

**VII-IX Chicago Municipal Sanitarium, and Michigan Tuberculosis Association**
**"Pulmonary Tuberculosis Differential Diagnosis and Treatment"**

An unusual display of material gathered from the exceptionally wide experience of the Chicago Municipal Sanitarium through whose courtesy this exhibit is made possible.

**VIII U. S. Citizens' Defense Corps of Michigan**
**"Emergency Medical Service"**

The exhibit explains the organization of the Emergency Medical Service of the U. S. Citizens' Defense Corps of Michigan and includes information on gas protection and the organization of the Nurses' Aides Corps and other auxiliary units.

**X Selective Service, Michigan State Headquarters, Lansing**
**"Selective Service"**

This exhibit will indicate, through the use of charts and diagrams, some of the physical reasons for rejecting men for military service. Questions will be answered and regulations will be explained to all physicians, including those who are aiding in the matter of physical examinations of Selectees.

**XI Michigan Department of Health**
**"The Nutrition Yardstick Translated into Daily Food Needs"**

This graphic way of showing how nutrition needs can be met with ordinary servings of food includes an attractive display of colored models of food with accompanying wall panels listing vitamins, minerals and protein.

**XII Medical and Surgical Relief Committee of America, New York, N. Y.**
**"Emergency Medical Field Sets"**

The Medical and Surgical Relief Committee of America, an organization engaged in the collection of surplus medical and surgical supplies for redistribution to evacuation hospitals and civilian defense posts, will display and distribute literature concerning its nationwide activities. Funds raised through the sale of emblems are devoted to the purchase of Emergency Medical Field Sets, completely equipped with medical and surgical supplies. They are constructed so that they can be readily picked up and transported anywhere they are needed by nurses and doctors. One of the sets will be on display.

**XIII Michigan Department of Health**
**"4x5 X-ray Film Exhibit"**

The exhibit will demonstrate the quality of the single 4x5 x-ray film, used in routine examinations of selective groups for tuberculosis case-finding. It will include abnormal findings on 4x5 films as compared with subsequent 14x17 films. Several hundred 4x5 films classified as normal or the various types of abnormalities will be available for viewing.

**XIV Wm. J. Seymour Hospital, Eloise**
**"Clinical Electrocardiography"**

This exhibit will show the fundamental principles of the electro-physiology of the heart and its practical application in various diseases of the heart and circulation. Graphic records of heart sounds, electrocardiograms and pulse tracings and their relationship in health and disease will be presented and electrocardiograph which projects the tracings on a fluorescent screen will be displayed. Serial electrocardiograms in standard limb leads supplemented by precordial and esophageal leads will be shown to emphasize their value in clinical medicine.

**XV Woman's Field Army of American Society for Control of Cancer, Michigan Department of Health, and MSMS Cancer Control Committee**
**"Cancer Control"**

The exhibit consists of latex cancer models, a set of six diorams showing development in treatment of malignant diseases since early history, and a set of statistical and educational charts.

**XVI Michigan Society of Anaesthetists**
**"Anaesthesia"**

This exhibit will consist of demonstrations of various types of anaesthetics.

**XVII-XIX Michigan Department of Health, and MSMS Syphilis Control Committee**
**"Management of Venereal Disease"**

1. A sound movie in color consisting of three parts will be shown. This movie has just recently been released by the United States Public Health Service. Part I demonstrates the diagnosis of early syphilis, including primary and secondary syphilis. Part II deals with the diagnosis of latent and late syphilis. Part III discusses the treatment of syphilis. This moving picture is very well done, shows new clinical examples, and summarizes in concise form the main essentials of both the diagnosis and treatment of syphilis.

**The movie will be shown Tuesday, September 22, 4:30 p.m.; Wednesday, September 23, 10:30 a.m. and 2:30 p.m.; Thursday, September 24, 10:30 a.m. and 2:30 p.m.; and at other times as occasion demands.**

2. A demonstration will be presented of delayed darkfield showing spirocheta pallida obtained from darkfield positive cases of primary and secondary syphilis. Preparation of such specimens will be discussed.

3. The procedures indicated in the diagnosis of gonorrhea showing methylene blue and Gram stains as well as gonorrhea cultures will be demonstrated. Demonstrators in this exhibit will be available to discuss newer forms of therapy including intensive treatment of early syphilis.

4. Transparencies in color and Kodachrome of interesting cases of early and late syphilis will be exhibited.

# WOMAN'S AUXILIARY

Mrs. W. J. Butler
President

**STATE CONVENTION COMMITTEE**

**Mrs. Carl F. Snapp, Chairman**
**Mrs. R. H. Denham, Co-chairman**
**Mrs. Wm. E. Hyland, Banquet and Luncheons**
**Mrs. T. C. Irwin, Flowers**
**Mrs. R. S. Breakey, Inter-county Committee**
**Mrs. L. M. McKinlay, Hospitality**
**Mrs. Wm. D. Lyman, Finance**
**Mrs. V. F. Kling, Printing**
**Mrs. A. V. Wenger, Publicity**
**Mrs. J. D. Miller, Registration**
**Mrs. Fred J. Melges, State Exhibit**
**Mrs. Wm. R. Rodgers, Nutrition Exhibit**

Mrs. Carl F. Snapp
Convention Chairman

**STATE OFFICERS, 1941-42**

**Mrs. William J. Butler, Grand Rapids.....President**
**Mrs. G. L. Willoughby, Flint.....President-elect**
**Mrs. John J. Walch, Escanaba.....Vice President**
**Mrs. Henry J. Pyle, Grand Rapids.....Secretary**
**Mrs. H. L. French, Lansing.....Treasurer**
**Mrs. Roger V. Walker, Detroit.....Past President**
**Mrs. Guy L. Kiefer, East Lansing.....**
**Honorary President**

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To All Women's Medical Auxiliaries in Michigan.

Dear Members:

As you know the State Medical Meeting is to be held in Grand Rapids again this year, September 21 to 24, and a very interesting and attractive program has been provided. May I sincerely urge that each and every one of you make an earnest effort to attend.

This year more than at any other time since our auxiliary was founded, we need your whole-hearted support due to the absence from the state of so many of our members who have accompanied their husbands to various stations with the Armed Forces. The responsibility for the success of our organization has been left upon the shoulders of those who remain at home, and it is up to us to carry on and meet the problems facing the doctors and our own communities during these strenuous days, and it is a meeting like this that will give us the inspiration and help that we need.

So in happy anticipation of seeing all of you in September, I am

Very sincerely yours,
Alice Noyes Snapp,
Chairman, Convention Committee.

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## PROGRAM

**Monday, September 21, 1942**

**9:00 A.M. Registration—Pantlind Hotel**
**12:30 P.M. Luncheon—Past Presidents and Secretaries of State Auxiliary**
**6:30 P.M. Dinner for wives of delegates and other members of MSMS. Individual charge**

**Tuesday, September 22, 1942**

**9:00 A.M. Registration—Pantlind Hotel**
**1:00 P.M. Luncheon—Pre-convention Board Meeting—Pantlind Hotel**
**1941-42 Board Members and County Presidents**

**4:00 P.M. Business Meeting for State Chairman**
Presiding—President-elect, Mrs. G. L. Willoughby

**6:30 P.M. Reception for National President, Past Presidents of Michigan Auxiliary and Board Members—Pantlind Hotel**
Chairman, Mrs. A. V. Wenger

**7:00 P.M. Banquet—Pantlind Hotel**
Presiding—Mrs. William J. Butler
Chairman—Mrs. Carl F. Snapp
Introduction of Past Presidents
Address—Mrs. Frank Haggard, San Antonio, Texas.
National President, Woman's Auxiliary to A.M.A.
Program

**Wednesday, September 23, 1942**

**8:00 A.M. Registration—Pantlind Hotel**
**9:00 A.M. Formal Opening of Convention—Pantlind Hotel**
Presiding—Mrs. William J. Butler, Grand Rapids
Address of Welcome—Mrs. Wm. A. Hyland, Grand Rapids
Response—Mrs. John J. Walch, Escanaba
In Memoriam—Mrs. Milton A. Darling, Detroit
Reading of the Minutes—Mrs. Henry J. Pyle, Grand Rapids
Report of treasurer—Mrs. H. L. French, Lansing
Auditor's report—Mrs. H. L. French
Report—Convention chairman, Mrs. Carl F. Snapp, Grand Rapids
Report of Special Committee and President's Message—Mrs. William J. Butler
Reports of Standing Committees
Reports of County Presidents
Courtesy Resolutions—Mrs. S. L. DeWitt, Grand Hoven
Report of Committee on Nominations—Mrs. Elmer L. Whitney, Detroit
Election and Installation of Officers
Presentation of Pin
Address—Mrs. G. L. Willoughby, Flint
Adjournment

**1:00 P.M. Luncheon—Pantlind Hotel**
Presiding—Mrs. Carl F. Snapp
Program

**4:00 P.M. Post-Convention Board Meeting**
Presiding—Mrs. G. L. Willoughby, 1942-43 Board and County Presidents

**President's Night, Michigan State Medical Society—Pantlind Hotel—For MSMS members, their wives and guests.**

# WEDNESDAY MORNING
# September 23, 1942

## *First General Assembly*

**Black and Silver Ballroom—Civic Auditorium**
A. S. Brunk, M.D., Presiding

L. Fernald Foster, M.D., and H. M. Pollard, M.D., Secretaries

**A. M.**
**9:30 "Pelvic Tumors Complicating Pregnancy, Labor and Puerperium"**

Harvey B. Matthews, M.D., Brooklyn, New York

Harvey B. Matthews

*B.Sc., University of Texas, 1905; M.D., Columbia University, College of Physicians and Surgeons, 1909. Clinical Professor of Obstetrics and Gynecology, Long Island College of Medicine. Attending Obstetrician and Gynecologist, Long Island College and the Methodist Hospitals of Brooklyn. Fellow of American College of Surgeons, American Gynecological Society; Diplomate of American Board of Obstetrics and Gynecology; Fellow of American Association of Obstetricians, Gynecologists and Abdominal Surgeons.*

Many types of pelvic tumors have been reported complicating pregnancy, labor and puerperium. In this discussion only the benign uterine and ovarian, solid or cystic tumors will be considered. Fortunately, such tumors are less common during the most prolific stage of childbearing age and they are relatively rare at any stage of reproductive life. A clear conception of the size, location and condition of the tumor is highly desirable. Under given conditions, certain pathological changes may take place within the tumor which may lead to further complications. Accurate diagnosis is most desirable. Likewise what to do, how and when to do it are most important desiderata. Generally speaking, conservative management is indicated. However, operative treatment, both as regards tumor and/or the labor calls for sane and prompt decisions. Likewise certain complications demand operative interference during pregnancy and/or the puerperium. Report of small series of cases.

### TEN DISCUSSION CONFERENCES

These quiz periods will be held Wednesday and Thursday, September 23 and 24, at 3:30 to 4:30 p.m. An opportunity to ask questions concerning the presentation of the guest-essayists, or to discuss one of your interesting cases with them, will be provided.

Discussion Conferences on General Practice, Surgery, Syphilology, Obstetrics and Gynecology, and on Chemotherapy will be held Wednesday afternoon.

Discussion Conferences on General Practice, Ophthal-otolaryngology, Medicine, Pediatrics, and on Radiology, Pathology and Anesthesia, will be held Thursday afternoon.

Please submit your questions, on forms printed in the Program to the Secretary of the General Assembly immediately after the termination of the lecture, in order that the guest essayist may have time to consider same before the quiz period.

**10:00 "Cancer of the Rectum"**

Fred W. Rankin, M.D., Lexington, Kentucky

Fred W. Rankin

*B.A., Davidson College, North Carolina, 1905; M.D., University of Maryland, 1909; M.A., St. John's College, Baltimore, 1915; Sc.D., Davidson College, 1938; Sc.D., University of Maryland, 1939; Sc.D. University of Kentucky, 1942. Chief Consulting Surgeon to the Surgeon General, United States Army; clinical professor of surgery, University of Louisville; formerly associate professor of surgery, University of Minnesota Medical School, Mayo Foundation; surgeon to Mayo Clinic; president of American Medical Association, 1942; Colonel, Medical Reserve Corps, U. S. Army; member of Phi Beta Kappa, Beta Theta Pi, Sigma Xi, and Phi Chi.*

Rectal cancer is one of the most frequent lesions of the gastrointestinal tract and one which can routinely be diagnosed in every case. It is unnecessary to repeat platitudes about the symptomatology and ease of recognition of this lesion, but actually if a simple digital examination and a protoscopic examination were indulged in when there were symptoms of lower gastrointestinal tract disease, the diagnosis would be made in every instance and treatment instituted at a much earlier time in the existence of the disease.

For practical purposes one may say that the choice of treatment, except for operative risk, is radical surgery. This, of course, is for adenocarcinomas of the rectum and not for epitheliomas of the anal canal. There is no evidence today to prove that radiation or other methods of destruction by electrical apparatus cures rectal cancer. Radical removal is the hope of these cases.

A series of one-stage combined abdominoperineal resections is reported and the mortality figures and morbidity and survival rates are discussed. The operation is a formidable one which may be consummated by an expert surgeon with reasonable death rates. It is distinctly not an operation for the casual operator.

**10:30 Intermission to View Exhibits**

**11:00 "Venereal Disease in the Armed Forces"**

Joseph Earle Moore, M.D., Baltimore, Maryland

Joseph Earle Moore

*A.B., University of Kansas, 1914; M.D., Johns Hopkins, 1916. Assistant in medicine, instructor and associate Johns Hopkins 1916-23; assistant visiting physician Johns Hopkins Hospital 1923-29; Physician in charge Syphilis Division of Medical Clinic, Johns Hopkins Hospital since 1929; Associate Professor Johns Hopkins University; Special Consultant, U. S. Public Health Service; Consultant Maryland State Department of Health; Chairman, Subcommittee on Venereal Diseases, National Research Council; Adjunct Professor of Public Health Administration, Johns Hopkins School of Hygiene and Public Health. Served as 1st Lt. and Capt. Med. Corps, U.S.A. with A.E.F. 1917-1919; Maj. Med. Res. Corps, 1920-28. Author: The Modern Treatment of Syphilis, 1st ed. 1933; 2nd ed. 1941. Editor, Amer. Jour. Syphilis., Gonor. & Ven. Dis., since 1935.*

This paper discusses the military importance of the venereal diseases; presents data as to their past and current incidence in the Armed Forces; and discusses the control measures now in use by the United States Army and Navy.

# WEDNESDAY MORNING

## September 23, 1942

**11:30 "Management of the Barren Marriage"**

GEORGE H. GARDNER, M.D., Chicago, Illinois

GEORGE H. GARDNER

*A.B., Wittenberg College, 1917; M.D., Johns Hopkins University School of Medicine, 1921. Associate Professor of Gynecology, Northwestern University School of Medicine; Attending Gynecologist to Passavant, and Wesley Memorial Hospitals. F.A.C.S.; Diplomate American Board of Obstetrics and Gynecology.*

Women tend to assume full responsibility for their inability to become pregnant and most scientific papers dealing with this problem have been entitled "Female Sterility." However, the term "Barren Marriages" is more appropriate because it emphasizes the mutual responsibility of both the husband and the wife, in their failure to have children. The majority of barren marriages result, not from a single cause in one spouse, but from a multiplicity of factors in both; some may seem trivial but, added together, they are sufficient to prevent conception. Successful management, therefore, depends on adequate examination of both the husband and the wife, followed by systematic elimination of every contributing factor from each of them.

This presentation, first, enumerates the essentials of a diagnostic study which will reveal most factors that contribute to a couple's infertility. It then deals with the accepted present-day treatment for the contributing causes which occur in women.

**A. M.**

**12:00 "Prolonged Labor"**

PHILIP F. WILLIAMS, M.D., Philadelphia, Pennsylvania

PHILIP F. WILLIAMS

*M.D., School of Medicine, University of Pennsylvania; 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.*

The occurrence of prolonged labor connotes some abnormal condition in either powers, passages or passenger. The incidence of, and etiological factors in prolonged labor in three hospitals have been analyzed. The incidence varies. The factors have been analyzed. Treatment has been reviewed. The circumstances surrounding 206 maternal deaths associated with prolonged labor occurring in Philadelphia in the past eleven years have been analyzed. Observations have been on the causes of death and method of handling these 206 cases.

**12:30 End of First General Assembly**

**12:30 Luncheon—View Exhibits**

**VIEW THE EXTRAORDINARY EXHIBIT DAILY**

# WEDNESDAY AFTERNOON

## September 23, 1942

### *Second General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

P. A. RILEY, M.D., Presiding

L. FERNALD FOSTER, M.D., and R. S. SIDDALL, M.D., Secretaries

**SYMPOSIUM ON CHEMOTHERAPY**

**P. M.**

**1:30 Sulfonamide Therapy in General Practice"**

HARRISON F. FLIPPIN, M.D., Philadelphia, Pennsylvania

HARRISON F. FLIPPIN

*M.D., University of Virginia School of Medicine, 1933. Intern, Hospital of the University of Pennsylvania, 1933-35, Chief Medical Resident, 1935-36. Chairman, Committee of Pneumonia Research, Philadelphia General Hospital. Chairman, Committee for the Control of Pneumonia, Medical Society of Pennsylvania. Associate in Medicine, School of Medicine, University of Pennsylvania. Fellow of American College of Physicians.*

During the past seven years, the value of administering the sulfonamides in the prevention and treatment of a variety of infections has been recognized. To obtain maximum success with these drugs it is necessary to have an understanding of certain principles inherent in this type of chemotherapy. In this discussion emphasis will be placed upon presentation of the following factors responsible for the successful use of sulfanilamide and its derivatives in general practice.

1. Proper Selection of Drug
2. Early Treatment
3. Adequate Dosage
4. Detection of Drug Toxicity
5. Employment of Other Therapeutic Measures

# THURSDAY EVENING

## September 24, 1942

### *Sixth General Assembly*

**(For MSMS Members Only)**
**Ballroom, Pantlind Hotel**

G. HOWARD SOUTHWICK, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

**SMOKER**
**(Stag)**

**Admission by Card Only**
**Nine O'Clock**
**Refreshments**
**Music and Entertainment**
**Host: The Michigan State Medical Society**

# WEDNESDAY AFTERNOON

## September 23, 1942

**P. M.**

**2:00 "Modern Management of Infections in the Urinary Tract"**

RUSSELL D. HERROLD, M.D., Chicago, Illinois

RUSSELL D. HERROLD

*S.B., Drake University, 1911; M.D., Rush Medical College, 1915. Associate Professor of Surgery (Urology), College of Medicine, University of Illinois, since 1935; member of staff, Research and Educational Hospitals. Member of Subcommittee on Venereal Diseases of the National Research Council. Served in World War I as Captain, M.C. Member of numerous scientific and medical organizations.*

A discussion will be given of sulfathiazole and sulfadiazine in the treatment of gonococcic infections, including optimum dosage, toxic manifestations, and problems connected with failures. Steps in the determination of cure are outlined. Important phases of the diagnosis and treatment of nonspecific prostatitis are summarized. The indications and contraindications for chemotherapy in infections of the bladder and upper urinary tract are reviewed. The administration of the sulfonamides for the prevention of instrumental reactions is emphasized. Lantern slides will be presented summarizing the important points in the various subdivisions of the subject.

**2:30 Intermission to View Exhibits**

**3:00 Title to Come**

JOHN A. TOOMEY, M.D., Cleveland, Ohio

JOHN A. TOOMEY

*A.B., John Carroll University, 1910; A.M., 1912; LL.B. Cleveland Law School, 1913; M.D., Western Reserve University, 1919. Professor, Clinical Pediatrics and Contagious Diseases, Western Reserve University; Physician-in-Charge, Division of Contagious Diseases, City Hospital; Associate Pediatrist, University Hospitals. Fellow, American College of Physicians, American Academy of Pediatrics, American Public Health Association and member of numerous scientific organizations.*

A consideration of the subject of chemotherapy from the standpoint of the acute infectious diseases of childhood; the results of chemotherapy in the various types of meningitis, poliomyelitis, sinusitis, complications of measles, scarlet fever, acute pyelitis, gastrointestinal diseases, pneumonia, acute bacterial endocarditis, streptococcus sore throat, ordinary colds, etc.; and the type of dye to be used will be made. In doing this, it will be pointed out that sulfathiazole and sulfadiazine may be much more dangerous drugs than is ordinarily thought and that while the earlier drugs have greater objective symptoms, the newer ones produce complications that are hidden. These come on suddenly and are more serious than those following the administration of the earlier dyes. Particular reference will be given to the role of the kidney in the use of dyes.

**3:30 Discussion Conferences with Guest Essayists** **(See Page 774.)**

**5:00 End of Second General Assembly**

# WEDNESDAY EVENING

## September 23, 1942

### *Third General Assembly*

### *Public Meeting*

**Ballroom, Pantlind Hotel**

HENRY R. CARSTENS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

**PRESIDENT'S NIGHT**

**8:30 P. M.**

1. **Call to order by President Henry R. Carstens, M.D., Detroit.**
2. **Announcements and Reports of the House of Delegates, by Secretary L. Fernald Foster, M.D., Bay City.**
3. **President's Annual Address—Henry R. Carstens, M.D.**
4. **Induction of Howard H. Cummings, M.D., Ann Arbor, into office as President of the Michigan State Medical Society. Response.**
5. **Presentation of Scroll and Past-President's Key to Dr. Carstens by A. S. Brunk, M.D., Chairman of The Council.**
6. **Introduction of the President-Elect and other newly elected officers of the State Society.**

**9:00 P. M.**

7. **The Andrew P. Biddle Oration "Resume of Military Medical Personnel Problems of the Army."**

COL. GEO. F. LULL, M.C., Washington, D. C.

COL. GEO. F. LULL

*M.D., Jefferson Medical College, 1909; C.P.H., Harvard Technology School of Public Health, 1920; Dr.P.H., University of Pennsylvania, 1921; Chief, Personnel Service, Surgeon General's Office, U. S. Army, Washington, D. C.*

8. **Presentation of Biddle Oration Scroll.**

**10:00 P. M.**
**Entertainment and Dancing**

**End of Third General Assembly**

**TOMORROW YOU'LL FIND SOMETHING NEW IN THE SCIENTIFIC AND TECHNICAL EXHIBIT**

# *Ten Discussion Conferences (Quiz Periods)*

Ten discussion conferences each with a different chairman—leaders of outstanding ability in their field—will be held Wednesday and Thursday afternoons. Here the doctor will have a chance to ask questions of the lecturers he has heard and to hear discussed medical matters of value to him in his daily practice.

**Wednesday, September 23—3:30 to 4:30 p.m.**

| GENERAL PRACTICE | SURGERY | SYPHILOLOGY | OBSTETRICS AND GYNECOLOGY | CHEMOTHERAPY |
|---|---|---|---|---|
| Red Room, Civic Auditorium | Ballroom, Pantlind | Room F, Civic Auditorium | Colonial Room, Pantlind Hotel | Black and Silver Ballroom Civic Auditorium |
| Leader: | Leader: | Leader: | Leader: | Leader: |
| **C. E. Umphrey, M.D.** Detroit | **F. A. Coller, M.D.** Ann Arbor | **U. J. Wile, M.D.** Ann Arbor | **H. H. Cummings, M.D.** Ann Arbor | **R. L. Novy, M.D.** Detroit |
| Guest Conferee: | Guest Conferee: | Guest Conferee: | Guest Conferees: | Guest Conferees: |
| **H. B. Matthews, M.D.** Brooklyn, N. Y. | **F. W. Rankin, M.D.** Lexington, Ky., and Washington, D. C. | **J. Earle Moore, M.D.** Baltimore, Md. | **P. F. Williams, M.D.** Philadelphia<br>**G. H. Gardner, M.D.** Chicago | **H. F. Flippin, M.D.** Philadelphia<br>**R. D. Herrold, M.D.** Chicago<br>**J. A. Toomey, M.D.** Cleveland |

**Thursday, September 24—3:30 to 4:30 p.m.**

| GENERAL PRACTICE | OPHTHALMOLOGY | MEDICINE | PEDIATRICS | RADIOLOGY, PATHOLOGY AND ANESTHESIA |
|---|---|---|---|---|
| Red Room, Civic Auditorium | Room F, Civic Auditorium | Black and Silver Ballroom Civic Auditorium | Ballroom, Pantlind | Colonial Room, Pantlind |
| Leader: | Leader: | Leader: | Leader: | Leader: |
| **M. G. Becker, M.D.** Edmore | **Parker Heath, M.D.** Detroit | **C. C. Sturgis, M.D.** Ann Arbor | **C. F. McKhann, M.D.** Ann Arbor | **Lawrence Reynolds, M.D.** Detroit |
| Guest Conferees: | Guest Conferees: | Guest Conferees: | Guest Conferees: | Guest Conferees: |
| **E. L. Sevringhaus, M.D.** Madison, Wis.<br>**H. C. Guess, M.D.** Buffalo, N. Y. | **Meyer Weiner, M.D.** St. Louis<br>**P. A. Chandler, M.D.** Boston | **R. W. Scott, M.D.** Cleveland<br>**J. B. Youmans, M.D.** Nashville, Tenn.<br>**J. Burns Amberson, Jr., M.D.** New York City | **A. H. Parmelee, M.D.** Chicago<br>**Bronson Crothers, M.D.** Boston<br>**C. G. Grulee, M.D.** Evanston, Ill. | **E. T. Bell, M.D.** Minneapolis<br>**P. M. Wood, M.D.** New York City<br>**E. H. Skinner, M.D.** Kansas City |

**All Members Are Invited to Join in These QUIZ PERIODS With the Guest Essayists**

# THURSDAY MORNING
# September 24, 1942

## *Fourth General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

L. J. Johnson, M.D., Presiding
L. Fernald Foster, M.D., and Frank Stiles, M.D., Secretaries

**9:30 "Preventive Aspects of Maternal Mortality"**

Philip F. Williams, M.D., Philadelphia, Pennsylvania

Philip F. Williams

*M.D., School of Medicine, University of Pennsylvania, 1909. Professor of Clinical Obstetrics and Gynecology, University of Pennsylvania; Gynecologist and Obstetrician, Philadelphia General Hospital and Jewish Hospital; Obstetrician, Presbyterian Hospital.*

An outstanding feature of practically all studies on maternal mortality is the high proportion of deaths regarded as avoidable. Responsibility for controlling such deaths have been assigned to patient, physician and the community. In the Philadelphia study, continuous since 1931, seven factors have been used in the final analysis of the cases: (1) Lack of prenatal care; (2) negligence of patient or her friends; (3) induction of abortion; (4) error in judgment; (5) error in technique; (6) intercurrent disease; (7) unavoidable disaster.

Each factor will be discussed from the standpoint of controllability.

**ACKNOWLEDGMENT. The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.**

**10:00 "Clinical Aspects of Arteriosclerosis"**

Roy W. Scott, M.D., Cleveland, Ohio

Roy W. Scott

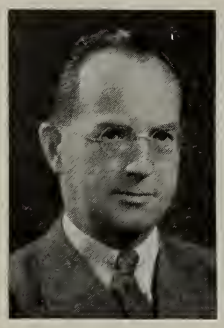
*M.D., Western Reserve University School of Medicine, 1913. Professor of Clinical Medicine, Western Reserve University School of Medicine; Diplomate of American Board of Internal Medicine; Fellow American College of Physicians; Physician-in-Chief, Cleveland City Hospital.*

The major medical problem facing the physician is that of human arteriosclerosis which today is killing more people than any other disease and there is every reason to believe that it will be even a more serious problem for the doctor of tomorrow. All the major therapeutic advances of the past generation are prolonging life and yearly adding thousands of recruits to the army of the aged which is destined to succumb to those two affections characteristic of the later decades of life, namely, vascular decay and cancer. The clinical pictures exhibited by patients dealing with vascular disease in three vital beds—heart, brain and kidney—will be presented with some consideration of the problem of hypertension.

**10:30 Intermission to View Exhibits**

**11:00 "The Nature and Experimental Treatment of Hypertension"**

Irvine H. Page, M.D., Indianapolis, Indiana



Irvine H. Page

*A.B., Chemistry, Cornell University, 1921; M.D., Cornell University, 1926; Presbyterian Hospital, New York, 1926-28; Kaiser Wilhelm Institute, 1931-37; Associate Member of Rockefeller Institute, 1928-31; Director of Clinical Research, Lilly Laboratory, Indianapolis City Hospital, 1937 to date; author of "Chemistry of the Brain."*

The evidence in favor of hypertension being due to chemical substances liberated from the kidney will be given. It will be shown that the substance named angiotonin when injected into animals and human beings quite closely reproduces the physiologic changes which are known to occur in hypertension produced experimentally in animals and spontaneously occurring in essential hypertension in man. Treatment of the disease in man will be discussed from the surgical and medical point of view. An attempt will be made to indicate that orderly progress is being made in the understanding of this disease which is killing more people than any other.

**11:30 "Hemorrhagic Disease of the Newborn"**

Arthur Hawley Parmelee, M.D., Oak Park, Illinois

A. H. Parmelee

*A.B., Beloit College, 1905; M.D., Rush Medical College, 1911. Postgraduate Study in Vienna, 1924-1925 and 1931-1932. Professor of Pediatrics, University of Illinois (Rush). Attending Pediatrician, Presbyterian Hospital; Attending Pediatrician, Cook County Hospital, Member, American Pediatric Society. American Academy of Pediatrics, Board of Directors Infant Welfare Society of Chicago.*

The new interest aroused in this subject by the discovery of Vitamin K as essential for the production of prothrombin makes it seem wise to review the facts in order not to be led astray by premature conclusions.

First, it is necessary to define Hemorrhagic Disease of the Newborn so that we may know what is to be included in any statistical review. If petechial hemorrhage into the skin and mucous membranes, microscopic blood in the urine, minimal bleeding from the navel, coffee-ground vomitus in the first day of life, and cephalhematoma among many other benign symptoms are to be considered manifestations of hemorrhagic disease, the incidence will be very high. But if we should include only those cases which have a definitely prolonged coagulation time or bleeding time as proposed by some, the incidence will be very low.

Only a small number of the cases reported as cured can rightfully be accredited to the treatment employed if the list includes the usual cases of mild bleeding which tend to recover spontaneously. Are we justified in using the term Hypoprothrombinemia of the Newborn as synonymous with Hemorrhagic Disease of the Newborn?

If we review the factors concerned in the coagulation of the blood, we can see that there are many besides Prothrombin and Vitamin K to be considered. The case for hypoprothrombinemia is a strong one but there remain several questions to be satisfactorily answered before there can be complete acceptance of this as the chief, much less the only cause of Hemorrhagic Disease of the Newborn.

**12:00 "Diagnostic and Therapeutic Problems of Obesity"**

ELMER L. SEVRINGHAUS, M.D., Madison, Wisconsin

ELMER L. SEVRINGHAUS

*B.A., University of Wisconsin, 1916; M.A., Wisconsin, 1918; M.D., Harvard, 1921. Professor of Medicine since 1938; Physician to Wisconsin General Hospital; Past President Association for the Study of Internal Secretions; Member of numerous national medical societies; author of "Endocrine Therapy in General Practice"; co-author of "Vitamin Therapy in General Practice"; Editor of the Yearbook of Endocrinology.*

The synopsis of the paper will be as follows: Obesity is always caused by disproportion between the intake and expenditure of calories. Increased intake may be voluntary and conscious or not recognized because of several features. Sometimes there is excessive hunger due to hypoglycemia, habitual overfilling of the stomach, addition to concentrated foods, or social pressures for eating. Decreased expenditure of calories may be associated with physical handicap, hypothyroidism, psychological or economic handicaps at activity. There are certainly constitutional and genetic types of obesity. It seems impossible to make any distinct correlation with endocrine factors in the direct etiology, however. Clinical types will be illustrated and the therapeutic program on dietary restriction adaptable for different patients will be explained.

**12:30 Luncheon—View Exhibits**

# THURSDAY AFTERNOON
# September 24, 1942

## *Fifth General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

R. J. HUBBELL, M.D., Presiding
L. FERNALD FOSTER, M.D., and H. B. ZEMMER, M.D., Secretaries

**P. M.**
**1:30 "Some Answers to Questions on Ophthalmology of the General Practitioners by Their Patients"**

MEYER WIENER, M.D., St. Louis, Missouri

MEYER WIENER

*M.D., Missouri Medical College, 1896; graduate study at University of Berlin, University of Heidelberg and University of Paris from 1897 to 1899. Professor of Clinical Ophthalomology, Washington University School of Medicine since 1910; Ophthalmic Surgeon, Missouri Pacific Hospital; also engaged in research and writing. Lt. Colonel in Medical Corps, U. S. Army, 1918; Diplomate of American Board of Ophthalmology; Fellow American College of Surgeons and member of numerous other medical and scientific organizations; Honorary Consultant to the Medical Department of the United States Navy.*

Doctor! Will my baby's eyes stay blue? Are brown eyes stronger than blue, or grey? Why are my baby's pupils so tiny? Or my little girl's so large? My baby sometimes looks cross-eyed or wall-eyed. Will it stay that way, or grow worse, or better? At what stage or age should a cross-eyed child wear glasses; and when should it be operated? Should drops be put in all newborn babies' eyes? Is light harmful to the eyes of a child with active measles? And will it harm if he uses his eyes for close work? What kind of colored glasses shall I wear at the seashore? These and many more will be answered.

**2:00 "Nephrosis and Nephritis"**

E. T. BELL, M.D., Minneapolis, Minnesota

E. T. BELL

*Professor and Head of the Department of Pathology, University of Minnesota. He has interested himself over a long period of time in the pathology of diseases of the kidney, particularly glomerulonephritis and hypertension kidney. He has also written a number of papers in other fields of pathology and has been interested for many years in surgical pathology. He is co-author and editor of Bell's "Textbook of Pathology."*

Nephritis is best classified on an anatomical basis as glomerular, tubular, interstitial and vascular. Glomerular diseases are of two types, viz., obstruction of the glomerular capillaries (proliferative), and hyperpermeability of the capillary wall (membranous glomerulonephritis). This latter type is called lipoid nephrosis. Proliferation of the capillary endothelium obstructs the blood flow through the glomeruli, decreases the glomerular filtrate and causes uremia. In lipoid nephrosis the blood proteins leak into the urine, decreasing the plasma proteins and causing edema. Albuminuria and edema are evidences of glomerular not tubular disease. The conception of a nephritic or nephrotic "Einschlag" is incorrect.

**2:30 Intermission to View Exhibits**

**3:00 "The Relationship of Anesthesiology to Medical Practice"**

PAUL M. WOOD, M.D., New York, New York

PAUL M. WOOD

*B.S., Columbia College, 1917; M.D., College of Physicians and Surgeons, 1922. Assistant Clinical Professor of Anesthesia, New York Medical College; Consulting and Attending Anesthetist to several New York hospitals; Fellow American Society of Anesthetists; Diplomate and Secretary-Treasurer, American Board of Anesthesia.*

The centennial of a major specialty in medicine is marked by a brief consideration of the dynamic development of Anesthesiology since Long's use of ether on March 30, 1842. Emphasis is laid on the discoveries through research, teaching, and clinical application. Its present integration with such associated fields as physics and chemistry, physiology and pharmacology, as seen in the laboratory, medical school, hospital and office, is discussed. A concept of the contributions which Anesthesiology may make to scientific knowledge, as well as to safer and more efficient clinical application in the practice of medicine, is presented.

**3:30 Discussion Conferences with Guest Essayist** **(See Page 774.)**

**5:00 End of Fifth General Assembly**

## OUTLINE OF SECTION MEETINGS
**Friday Morning, September 25, 1942**

| *Medicine* Ballroom, Pantlind 9:00 a.m. | *Obstetrics & Gynecology* Swiss Room, Pantlind 9:30 a.m. | *Surgery* Black & Silver Ballroom Civic Auditorium 9:00 a.m. | *Ophthalmology and Otolaryngology* Civic Auditorium | *Radiology, Pathology and Anesthesia* Red Room, Civic Auditorium 9:30 a.m. |
|---|---|---|---|---|
| Paul H. Noth, M.D. Detroit | J. Wm. Peelen, M.D. Kalamazoo | W. D. Gatch, M.D. Indianapolis, Ind. | Ophthalmology Room F—9:00 a.m. | Edward H. Skinner, M.D. Kansas City, Mo. |
| Paul S. Barker, M.D. Ann Arbor | Gardiner Riley, M.S. Ann Arbor | C. Fremont Vale, M.D. Detroit | Henry A. Dunlap, M.D. Detroit | C. W. Muehlberger, Ph.D. Lansing |
| Charley J. Smyth, M.D. Eloise | David J. Levy, M.D. Detroit | F. A. Coller, M.D. Ann Arbor | Meyer Wiener, M.D. St. Louis, Mo. | E. T. Bell, M.D. Minneapolis, Minn. |
| J. B. Youmans, M.D. Nashville, Tenn. | Franklin H. Top, M.D. Detroit | V. N. Butler, M.D. James E. Cole, M.D. Detroit | Paul A. Chandler, M.D. Boston, Mass. | Joseph A. Kasper, M.D. Detroit |
| Clarke J. McColl, M.D. Dwight C. Ensign, M.D. Frank J. Sladen, M.D. Detroit | W. C. Danforth, M.D. Evanston, Ill. | *Pediatrics* Colonial Room, Pantlind 9.00 a.m. | Harold F. Falls, M.D. Ann Arbor | *General Practice* Rooms B-C-D, Civic Auditorium 9:00 a.m. |
| Carl Heller, M.D. Detroit | —Luncheon— | Charles F. McKhann, M.D. Ann Arbor | J. Conrad Gemeroy, M.D. Detroit | H. C. Guess, M.D. Buffalo, N. Y. |
| J. Burns Amberson, M.D. New York, N.Y. | *Dermatology* Directors' Room Civic Auditorium 9:30 a.m. | S. D. Kramer, M.D. Lansing | Otolaryngology Room G—9:30 a.m. | Henry J. Kehoe, M.D. Detroit |
| | Eugene S. Traub, M.D. New York, N. Y. | James L. Wilson, M.D. Detroit | George E. Shambaugh, Jr. M.D., Chicago | Gordon B. Myers, M.D. Detroit |
| | L. A. Brunsting, M.D. Rochester, Minn. | Sister Elizabeth Kenny Australia | Clifford F. Brunk, M.D. Detroit | Eugene Secord, M.D. Detroit |
| | C. J. Marinus, M.D. Detroit | Don W. Gudakunst, M.D. New York | James H. Maxwell, M.D. Ann Arbor | M. S. Chambers, M.D. Flint |
| | —Luncheon— | Bronson Crothers, M.D. Boston | J. Lewis Dill, M.D. Detroit | —Business Meeting— |
| | | | —Luncheon— | |

SECTION MEETINGS ON FRIDAY MORNING ONLY. DETAILED PROGRAMS ON PAGES 778-781
Admission to all meetings by Badge Only. Register—Exhibit Floor—Civic Auditorium.

## PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS OF MICHIGAN STATE MEDICAL SOCIETY

The following amendments were presented at the 1941 Convention and according to the Constitution were referred to the 1942 Session of the House of Delegates for final consideration:

### Constitution

1. Amend **Article III, Section 4,** by adding the following sentence: "Honorary members shall pay no dues to the State Society and shall be without right to vote or hold office in either County or State Society."

*Comment:* The present Constitution provides for Honorary Members, but does not state whether or not they shall pay dues, vote, or hold office. Therefore, this amendment would clarify the status of Honorary Members.

2. Amend **Article IV, Section 3,** by adding the following sentence: "The past presidents shall be members at large of the House of Delegates during the first five (5) years of their past presidency with right to vote and hold office."

*Comment:* This amendment would make all past presidents of the Michigan State Medical Society automatically members at large of the House of Delegates for the first five years following their term as president.

3. Amend **Article IV, Section 5,** by re-arranging the Section, to read as follows: "The House of Delegates shall at the regular annual session, elect the President-elect, a Speaker and Vice Speaker of the House of Delegates, Members of The Council, and such other officers as may be created by the House of Delegates, unless otherwise specified in the Constitution and By-laws. It also shall elect delegates and alternate delegates to the American Medical Association."

*Comment:* This amendment would add delegates and alternates to the American Medical Association to the list of officers to be elected by the House of Delegates at its annual session.

4. Amend **Article X, Section 1,** third sentence, by having the word "Session" changed to "Meeting" and read as follows: "A majority of all the members present at that *meeting* shall determine the question and be binding."

*Comment:* Clarification of the term "session" and "meeting."

5. Delete **Article III, Section 3** (referring to Junior Membership), and re-number subsequent sections in Article III from 4 to 8, to 3 to 7, respectively.

*Comment:* This amendment would eliminate a duplication in the Constitution. At the present time Associate Membership in the State Medical Society is provided for interns in addition to Junior Membership and it is felt that membership privileges for interns is adequately covered by Associate Membership.

6. Amend **Article V, Section 1,** by deleting the fifth and sixth sentences of the Section, which read: "The President, the President-elect, the Secretary, and the Treasurer shall be ex officio members and without right to vote. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with power to vote."

*Comment:* This amendment would give the president, president-elect, secretary and treasurer, now members of The Council, the right to vote.

### By-Laws

7. Amend the By-laws by adding a new Section to **Chapter 1,** in accordance with the following resolution presented at the 1941 House of Delegates:

"WHEREAS, before active members of the Michigan State Medical Society may be transferred to the Roster of either Honorary Members, or Retired Members, or Members Emeritus, proper investigation of their qualifications must be made for such transfer as provided in Article III, of the Constitution, Sections 4, 6, and 7, then

"BE IT RESOLVED, that the County Societies send resolutions for such transfers to the Secretary of the State Society at least thirty days before the annual meeting of the Society.

"BE IT FURTHER RESOLVED, that the Secretary of the State Society present a resolution essentially combining these resolutions in a compact form to the House of Delegates at the regular annual meeting of the Society."

No specific amendment was offered, the above resolution being referred to the 1942 Session of the House of Delegates for consideration.

# — PROGRAM of SECTIONS —

# FRIDAY MORNING
# September 25,1942

## SECTION ON MEDICINE

Chairman: Gordon B. Myers, M.D., Detroit
Secretary: H. M. Pollard, M.D., Ann Arbor

**Ballroom, Pantlind Hotel**

**A. M.**

**9:00 to 9:20 "Digitalis Therapy in Cardiac Disease"**
Paul H. Noth, M.D., Detroit

**9:25 to 9:45 "Troublesome Problems in Circulatory Disease"**
Paul S. Barker, M.D., Ann Arbor

**9:50 to 10:10 "Significance and Management of Joint Pain"**
Charley J. Smyth, M.D., Eloise

**10:15 to 10:45 "The Clinical Importance of Protein in the Diet"**
J. B. Youmans, M.D., Nashville, Tennessee

J. B. Youmans

*A.B., U. of Wis., 1915; M.S., 1916, and M.D., Johns Hopkins, 1919; interned, Milwaukee Children's Hospital; asst. in medicine, Johns Hopkins, 1921-22; instructor in internal medicine, U. of Mich., 1922-24; assistant professor of medicine, Vanderbilt, 1924-28; associate professor of medicine, 1928-40; director of postgraduate instruction since 1930; at present professor of medicine and acting head of department of medicine and physician-in-chief at Vanderbilt University Hospital.*

The biologic functions and requirements of protein in man, the manifestations of protein deficiency, its diagnosis, especially of the milder forms and treatment by various means are discussed in relation to various aspects of clinical medicine and the protein constituent of diet.

**10:50 to 11:10 "Present Day Gout—Report of Certain Diagnostic and Therapeutic Experiences"**
Clarke M. McColl, M.D., Dwight C. Ensign, M.D., and Frank J. Sladen, M.D., Detroit

**11:15 to 11:35 "Diagnosis and Treatment of the Male Climacteric"**
Carl Heller, M.D., Detroit

**11:40 to 12:10 "Clinical Interpretation of Early Tuberculosis"**
J. Burns Amberson, Jr., M.D., New York City
(Biography on Page 783.)

**12:15 Election of Officers**

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**PSORIASIS**

Psoriasis has been the bête noir of physicians for many generations. Louis A. Brunsting, M.D., of Mayo Clinic is going to discuss "The Treatment of Psoriasis" at the Section Meeting on Dermatology, Friday, September 24. Dr. Brunsting, who has been very active in the research work on the therapy of psoriasis, also will present in a beautiful colored film a visual demonstration of the therapy. The Dermatological Section invites every practitioner to attend this timely presentation.

## SECTION ON SURGERY

Chairman: Roger V. Walker, M.D., Detroit
Secretary: Robt. H. Denham, M.D., Grand Rapids

**Black & Silver Ballroom, Civic Auditorium**

**A. M.**

**9:00 "Diagnosis and Treatment of Injuries of the Abdomen"**
W. D. Gatch, M.D., Indianapolis

W. D. Gatch

*A.B., Indiana University, 1901. M.D., Johns Hopkins Medical School, 1907. Assistant Resident Surgeon, Johns Hopkins Hospital, 1907-1911. Resident Surgeon, Washington University Hospital, 1911. Professor of Surgery and Dean, Indiana University School of Medicine, 1930 —.*

Injuries of the abdomen divided into three groups:
- Group I—With external signs of injury
- Group II—Without external signs of injury
- Group III — Abdominal symptoms due to injuries elsewhere.

The occurrence and symptoms of each group will be discussed along with the treatment.

The patient with penetrating wounds of the abdomen should be subjected to immediate laparotomy even though in relatively bad condition. Certain conditions under which laparotomy should be performed even when there is no external mark of injury.

Diagnosis and treatment of rupture of the diaphragm. This may occur as late as several weeks after the original injury and may be mistaken for coronary occlusion.

Anesthesia.

Proper incisions for treatment of abdominal injuries.

The use of the sulfonamide drugs and adjuvent treatments.

**9:40 "Some Surgical Problems in Ulcer Treatment"**
C. Fremont Vale, M.D., Detroit

**10:20 "The Local Use of the Sulfonamides in Surgery"**
F. A. Coller, M.D., Ann Arbor

**11:00 "Treatment of Burns in the Smaller Hospital"—illustrated by colored moving pictures***
Volney N. Butler, M.D., and
James E. Cole, M.D., Highland Park

**11:40 Question and Answer Period**

**12:15 Election of Officers**

(*Movie to be shown after the election of officers)

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## SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman: Robt. B. Kennedy, M.D., Detroit
Secretary: Roger S. Siddall, M.D., Detroit

**Swiss Room, Pantlind Hotel**

**A. M.**

**9:30 "Pregnancy Complicated by Acute Poliomyelitis"**
J. William Peelen, M.D., Kalamazoo

**9:50 "The Place of Hormone Assays in Clinical Medicine"**
Gardiner Riley, Ph.D., Ann Arbor
(By Invitation)

**10:10 "Diarrhea of the Newborn": Clinical Aspects**

DAVID J. LEVY, M.D., Detroit

**"Epidemiological Aspects and Methods of Control"**

FRANKLIN H. TOP, M.D., Detroit

**11:00 "Selection of Operation in Cases Requiring Hysterectomy"**

W. C. DANFORTH, M.D., Evanston, Ill.

W. C. DANFORTH

*M.D., Northwestern University Medical School, 1903; intern at Cook County Hospital, 1903-04; postgraduate study at University of Vienna, 1905-06. On the faculty of Northwestern University Medical School for many years as Associate Professor of Gynecology and Obstetrics until 1937; Professor since that date. Has contributed two text books, written one popular book and about sixty papers on various gynecological and obstetrical topics. Fellow, Institute of Medicine of Chicago and member of American Gynecological Society.*

Hysterectomy is a frequently performed operation. The employment of a fixed technic in all cases is inadvisable. The choice of operation should be made to fit individual conditions. Subtotal abdominal, total abdominal, and vaginal hysterectomy all have their place. Practice in active clinics tends to the more frequent removal of the entire uterus. Study of 1500 cases of various types is presented.

**12:00 Election of Officers**

**12:30 Luncheon**

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## SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: F. BRUCE FRALICK, M.D., Ann Arbor

Vice Chairman: DON M. HOWELL, M.D., Saginaw

Secretary: A. E. HAMMOND, M.D., Detroit

Vice Secretary: ANDRE CORTOPASSI, M.D., Saginaw

### OPHTHALMOLOGY
### Room F, Civic Auditorium

**A. M.**

**9:00 "Vaccines in the Treatment of Iritis and Uveitis"**

HENRY A. DUNLAP, M.D., Detroit

**9:20 "Transplantation of Preserved Tissue in Ophthalmic Surgery"**

MEYER WIENER, M.D., St. Louis, Mo.

(Biography on Page 776)

Transplantation of preserved tissue in ophthalmic surgery has been practiced for nearly forty years. More thought has been given to it recently, especially in work with the cornea and fascia. True transplantation most likely does not take place, but a replacement, with the graft acting as a supporting membrane.

Heterogenous grafts of cornea, bone, cartilage and fascia, preserved in various media, have been employed in eye surgery. Recently, transplantation of cornea from different species has been revived, with contradictory results. Little has been done with conjunctiva.

Progress of the author's experimental research with preserved, heterogenous conjunctiva on rabbits and monkeys will be discussed in this presentation.

**10:20 "Some Problems in the Treatment of Glaucoma"**

PAUL A. CHANDLER, M.D., Boston

PAUL A. CHANDLER

*M.D., Harvard Medical School, 1924. Instructor, Harvard Medical School; Surgeon, Massachusetts Eye and Ear Infirmary. Member New England Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, American Ophthalmological Society.*

Acute congestive glaucoma has very different manifestations from those of chronic glaucoma. A single attack is usually sufficient grounds for operation. Classical iridectomy is the operation of choice in early cases, but fails permanently to relieve the tension in the neglected cases some other type of operation is indicated here. The greater problem in the management of chronic glaucoma is to decide whether conservative treatment or surgery should be employed. Factors influencing this decision are the age of the patient, the condition of the lens, and the ocular tension. A great deal of helpful information for making this decision can be obtained by measuring the tension on several occasions during the day, without treatment and with various forms of miotic therapy. If operation should be decided upon one should choose the type of operation best suited to the individual case.

**11:20 "Exophthalmos in Children"**

HAROLD F. FALLS, M.D., Ann Arbor

**11:40 "Cataract Extraction with a Modified Dimitry Suction Syringe"**

J. CONRAD GEMEROY, M.D., Detroit

**12:00 Election of Officers of the Section**

**12:20 Luncheon of the Section**

### OTOLARYNGOLOGY
### Room G, Civic Auditorium

**A. M.**

**9:30 "Nasal Allergy"**

GEORGE E. SHAMBAUGH, JR., M.D., Chicago

(Biography on Page 782)

The normal defense mechanisms of the nose and sinuses are sufficient to result in complete clearing of a great majority of all acute infections, if the tissues are put to rest. The chronicity of infections in the nose or sinus are due either to the type of infecting organism, usually anaerobic, or to an underlying allergy.

The majority of chronic sinus infections are due to a combination of infection and underlying allergy. Differentiation of the two types of chronic sinusitis is possible since each type has certain characteristics. These characteristics will be described and the diagnosis and treatment of the underlying allergic factor will be discussed. The best therapeutic results are when both the infection and the allergic factor are treated simutaneously.

**10:45 Discussion—15 minutes**

**11:00 "Bacterial Hypersensitivity; A Neglected Phase of Allergy"**

CLIFFORD F. BRUNK, M.D., Detroit

**11:20 Discussion—10 minutes**

**11:30 "Atlanto-axial Dislocation, Case Report"**

JAMES H. MAXWELL, M.D., Ann Arbor

**11:50 Discussion—10 minutes**

**P. M.**

**12:00 "Vertigo"**

J. LEWIS DILL, M.D., Detroit

**12:20 Discussion—10 minutes**

**12:30 Election of Officers of the Section**

**12:40 Luncheon of the Section**

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## SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: Claud W. Behn, M.D., Detroit
Secretary: Frank Stiles, M.D., Lansing

**Directors Room—Civic Auditorium**

**A. M.**

**9:30 "The Therapy of Nevi and Their Relationship to Skin Malignancies"**
Eugene F. Traub, M.D., New York City

Eugene F. Traub

*B.S., 1916, and M.D., 1918, University of Michigan; Associate Clinical Professor of Dermatology and Syphilology, Skin and Cancer Unit, Postgraduate Medical School and Hospital, Columbia University. Consulting Dermatologist and Syphilologist to Centril Islip State Hospital, Nassau Hospital and Meadowbrook Hospital. Professor of Dermatology and Syphilology, University of Vermont. Consulting Dermatologist to Bishop DeGoesbriand Hospital, Burlington, Vermont. Fellow, Dermatological Section, New York Academy of York Dermatological Society and American Dermatological Association.*

In dealing with a subject so comprehensive, it will be necessary to limit the discussion to the two principal types of nevi, namely the vascular and the pigmented. Despite many advances in therapy there still are decided differences of opinion as to what nevi should be treated and which should be left alone. Some suggest leaving them alone so that they may either disappear spontaneously or because of fear that treatment might convert a quiescent benign nevus into a malignant one. Such basic considerations in individual cases must be carefully weighed to determine the best procedure to be followed. If errors in judgment and management occur at this time, the most favorable opportunity to achieve a good result is usually lost and subsequent treatment becomes proportionately more difficult and unsatisfactory. Since some nevi may give rise to malignant growths, this fact must also determine our course of action. Fundamentals and actual procedures will be discussed in detail.

**10:00 Discussion**

**10:20 "The Treatment of Psoriasis," illustrated by colored movie**
Louis A. Brunsting, M.D., Rochester, Minn.
(Biography on Page 782)

From time to time, new fields of research awaken spurts of interest in the etiology and treatment of the age-old, baffling problem of psoriasis but most of these trails soon reach a dead end. Aside from its nuisance value and psychologic handicap to adolescents, psoriasis may cause real concern when the eruption is generalized or when it is associated with disabling complications such as psoriatic arthritis. In this latter condition there is usually a characteristic pattern of involvement and the management is of interest to dermatologists and internists alike. Lacking a cure for psoriasis, we find it important, especially in the widespread and complicated cases, to be able to offer a method of control which is efficient and economical. This is accomplished by the use of the Goeckerman regime which consists largely of inunctions of crude coal tar ointment and ultraviolet irradiation. The details of the technique which assure a favorable response in most instances are elaborated by colored motion pictures.

**10:50 Discussion**

**11:10 "Skin Diseases and Endocrinology"**
C. J. Marinus, M.D., Detroit

**11:40 Discussion**

**12:00 Election of Officers**

**P. M.**

**12:30 Luncheon at Pantlind Hotel**

## SECTION ON RADIOLOGY, PATHOLOGY, ANESTHESIA

Chairman: Frank Murphy, M.D., Detroit
Secretary: Donald C. Beaver, M.D., Detroit
Secretary: L. E. Holly, M.D., Muskegon

**Red Room, Civic Auditorium**

**A. M.**

**9:30 "Duodenal Ulcer as a Wartime Disease of Citizen and Soldier"**
Edward H. Skinner, M.D., Kansas City, Mo.

Edward H. Skinner

*M.D., Medical Department, St. Louis University, 1904. Diplomate of American Board of Radiology; Past President of American Roentgen Ray Society (1928), and American Radium Society (1936). He has been the delegate from the Section of Radiology to the American Medical Association for several years and is a member of the American Board of Radiology and a Chancellor of the American College of Radiology. He has contributed extensively to radiologic literature and has served on the Editorial Board of the American Journal of Roentgenology and Radiumtherapy for nearly twenty years. He was the Janeway Lecturer and Medalist of the American Radium Society last year.*

Reliable reports indicate that 20% of the English soldiers evacuated from Dunkerque developed duodenal ulcers. Numerous clinical reports in English medical literature assess 50% of gastrointestinal hospital admissions to radiologically diagnosed peptic ulcer. During the 1940 blitzkrieg over England the civilian population began to exhibit a distinct increase in the incidence of peptic ulcer. Peptic ulcer is an easy disease to simulate or malinger. Therefore, the roentgenographic demonstration of an actual lesion becomes an important factor in establishing the diagnosis. These new incidents serve to renew interest in the neurogenic, the dietetic and the infection theories upon the origin of duodenal or peptic ulcer.

**10:30 "Toxicology of War Cases"**
C. W. Muehlberger, Ph.D., Lansing, Mich.
(By invitation)

**11:15 "Tumors of the Breast"**
E. T. Bell, M.D., Minneapolis, Minn.
(Biography on Page 776)

An analysis is made of 2,100 surgical specimens of breast tissue. The percentage of lesions of different types is tabulated. Tumors are classified from the clinical standpoint as follows: a single well defined mass (a) adherent, (b) non-adherent; multiple massses; acute carcinoma; Paget's disease; mastitis; and discharge from the nipple. The procedure to establish the diagnosis is discussed in each form. The histological appearances are shown in lantern slides. The relation of the age of the patient to the type of tumor is discussed.

**11:45 A Modified Quantitative and Qualitative Benedict Test for Sugar in Urine."**
Joseph A. Kasper, M.D., Detroit, Mich.

**12:00 Discussion Period. Short Business Meeting. Election of Officers**

## SECTION ON PEDIATRICS

Chairman: JOHN SANDER, M.D., Lansing
Secretary: LEON DEVEL, M.D., Grand Rapids

**Colonial Room, Pantlind Hotel**

**A. M.**
**9:00 Round Table on "Poliomyelitis"**

CHARLES F. MCKHANN, M.D., Ann Arbor, Chairman

1. **"Research in Poliomyelitis"**
   S. D. KRAMER, M.D., Lansing
2. **"Prognosis of Poliomyelitis and Treatment of the Commonly Fatal Types"**
   JAMES L. WILSON, M.D., Detroit
3. **"The Kenny Treatment of Poliomyelitis"**
   SISTER ELIZABETH KENNY of Australia

SISTER KENNY

ELIZABETH KENNY, *Brisbane, Queensland, Australia. Originator of Kenny method of treatment for poliomyelitis. Author of "Treatment of Infantile Paralysis in the Acute Stage."*

Infantile paralysis has been regarded in the past as a disease causing muscles of the body to become hypotonic and flaccid. Treatment for such condition was to rest the supposedly affected muscles by the application of splints and casts. On the contrary the muscles affected by the disease of infantile paralysis are hyper-irritable and in spasm. The toneles and supposedly paralyzed muscles are the normal muscles. It is obvious that the true symptoms of the disease are quite the reverse from that of the previous conception. It follows that a treatment devised for flaccid paralysis could not be adapted to a disease in which the muscles have the reverse condition or spasm of the muscles. Spasm is the damaging condition in acute infantile paralysis. Spasm in muscle precedes paralysis and causes destruction of muscles, shortening of muscles, and eventually produces deformities. Treatment properly designed and instituted early will prevent undesirable after-effects.

4. **"Survey of the Progress Against the Disease"**
   DON W. GUDAKUNST, M.D., New York N. Y.

D. W. GUDAKUNST

*M.D., University of Michigan, 1919; Dr.P.H., Wayne University, 1937; Director School Health Service, Detroit Department of Health, 1924-37; Professor of Public Health and Preventive Medicine, Wayne University, 1937-41; Deputy Health Commissioner, Detroit Department of Health, 1932-37; State Health Commissioner, Michigan Department of Health, 1938-39; Senior Surgeon (R) U. S. Public Health Service, 1939; Medical Director, National Foundation for Infantile Paralysis since 1940.*

Advance in poliomyelitis has occurred along many lines. Not only do we have an improvded regime of treatment (Kenny), but much has been learned about the virus, its possible modes of transmission, its presence in nature, and possible avenues of entrance to the body. Knowledge in respect to pathological and histological changes produced by the virus has been extended. There are many unanswered problems in epidemiology, immunology, prophylaxis, and therapy, but ways of approaching these have been developed to a promising extent.

**10:45 Recess**

**11:00 "Prognosis After Injury or Infection of the Nervous System in Childhood"**

**(Illustrated by moving pictures and slides)**

BRONSON CROTHERS, M.D., Boston

BRONSON CROTHERS

*A.B., 1905, and M.D., 1910. Harvard University, Assistant Professor Pediatrics, Harvard Medical School, Member American Medical Association, etc., American Pediatric Society, American Neurological Association, etc. Author of "A Pediatrician in Search of Mental Hygiene" and various papers in neurological and pediatric journals.*

Recovery after injury or infections of young children is difficult to define unless growth and development are taken into consideration. This is particularly true if attention is given to the nervous system. It is obvious that recovery is inadequate if mere restitution to a previously attained status is achieved. The process cannot be regarded as complete until evidence is available which indicates that the child is going along a developmental road which leads to orderly and effective education and eventual general adequacy.

Any attempt to carry out investigation of this sort demands patience and assistance from skilled psychologists and social workers. The implications of such a study, however, are relatively clear and perhaps useful.

The major value of the approach is related to the medical and educational management of children during the months or even years which may elapse before a durable prognosis can be made.

**12:00 Election of Officers.**

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## SECTION ON GENERAL PRACTICE

Chairman: ARCH WALLS, M.D., Detroit
Secretary: H. B. ZEMMER, M.D., Lapeer

**Rooms B-C-D, Civic Auditorium**

**A. M.**
**9:00 "Evaluation of Rectal Examinations"**
H. C. GUESS, M.D., Buffalo, N. Y.

H. C. GUESS

*M.D., University of Buffalo, 1912; internship at Buffalo General Hospital, 1913-14; 1st Liuet, M.C., Merican Border Service, 1916; Captain, M.C., 65th Infantry, N.Y.G., 1917-18. Postgraduate studies in proctology at Poly Clinic, 1918; St. Marks, London, 1929; Fredreicksheim Kranenhaus, Berlin, 1929, and Harvard, 1929. Chief Proctologist Millard Fillmore Hospital and Buffalo Hospital Sisters of Charity. Attending Proctologist Edward J. Meyer Memorial Hospital. Consulting Proctologist J. N. Adam Memorial and Lafayette General Hospitals, Buffalo. Fellow American College of Surgeons and American Proctologic Society.*

A rectal examination is performed easily and quickly. The pain previously experienced during this examination has been minimized by the various anesthetic means for aiding an operator who studies the anatomy of the rectum and the anal canal.

Reluctance on the part of the patient, especially females, that formerly existed is today almost nil. Can as much be said regarding physicians in making rectal examinations? The more the general practitioner performs rectal examinations, the greater the

number of earlier diagnosed cases of cancer will be recorded. Much suffering will be avoided, and a greater number of lives will be saved by adequate surgery. Eighty per cent of all cancers of the rectum may be determined by a digital examination.

Even our present armamentarium, radical surgery, requires early diagnosis for a complete cure of cancer of the rectum. Much time and money is wasted when a physician omits a rectal examination.

**9:40 "Electrocardiography. Its Value and Limitation."**
HENRY J. KEHOE, M.D., Detroit

**10:20 "The Newer Developments in the Use of the Sulfonamides, and Complications"**
GORDON B. MYERS, M.D., Detroit

**10:50 "The Diagnosis and Office Treatment of Some Common Orthopedic Complaints"**
EUGENE SECORD, M.D., Detroit

**11:30 "Shock (Peripheral Circulatory Failure)"**
MYRTON S. CHAMBERS, M.D., Flint

**12:10 Business Meeting. Election of Officers. (Ten minutes discussion after each talk)**

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# HOUSE OF DELEGATES, 1942

## REFERENCE COMMITTEES

### Credentials Committee

J. J. O'Meara, M.D., **Chairman**

D. C. Stephens, M.D. — Hazen L. Miller, M.D.
C. W. Oakes, M.D. — E. G. Bovill, M.D.

### On Officers' Reports—Room 122

C. E. Toshach, M. D., **Chairman**

W. B. Harm, M.D. — C. D. Brooks, M.D.
Don V. Hargrave, M.D. — Gordon Yeo, M.D.

### On Reports of The Council—Parlor B

Joseph Andries, M.D., **Chairman**

Frank Reeder, M.D. — A. T. Hafford, M.D.
Grover C. Penberthy, M.D. — A. V. Wenger, M.D.

### On Reports of Standing Committees—Room 124

O. D. Stryker, M.D., **Chairman**

L. W. Gerstner, M.D. — Volney Butler, M.D.
L. J. Morand, M.D. — H. T. Sethney, M.D.
Charles S. Kennedy, M.D. — D. Bruce Wiley, M.D.
Donald Thorup, M.D. — R. K. Hart, M.D.

### On Reports of Special Committees—Room 126

Stanley W. Insley, M.D., **Chairman**

V. C. Abbott, M.D. — M. G. Becker, M.D.
J. J. Walch, M.D. — D. J. O'Brien, M.D.
W. H. Alexander, M.D. — Wm. S. Gonne, M.D.

### On Amendments to Constitution and By-Laws—Room 127

C. L. Hess, M.D., **Chairman**

John A. Wessinger, M.D. — David I. Sugar, M.D.
H. W. Plaggemeyer, M.D. — W. D. Barrett, M.D.

### On Resolutions—Room 128

A. E. Catherwood, M.D., **Chairman**

D. R. Brasie, M.D. — A. C. Roche, M.D.
R. L. Novy, M.D. — G. L. McClellan, M.D.
C. F. DeVries, M.D. — Carl F. Snapp, M.D.
Dean W. Myers, M.D. — Roger V. Walker, M.D.

**Reference Committee reports are to be submitted to the House of Delegates in triplicate**

# FRIDAY AFTERNOON
# September 25, 1942

## *Seventh General Assembly*

**Black and Silver Ballroom—Civic Auditorium**

P. L. LEDWIDGE, M.D., Presiding
L. FERNALD FOSTER, M.D., and ANDRÉ CORTOPASSI, M.D., Secretaries

**P. M.**
**1:30 "Deafness or Impaired Hearing"**
GEORGE E. SHAMBAUGH, JR., M.D., Chicago, Illinois

GEO. E. SHAMBAUGH, JR.

*A.B., Amherst College, 1924; M.D., Harvard Medical School, 1928. Chairman, Dept. of Otolaryngology, Rush Medical College, 1938-41; Associate Professor of Otolaryngology, Univ. of Ill., 1941; Consultant in Otology, Municipal Contagious Disease Hospital, Chicago, 1934-41; Assistant Professor of Otolaryngology, Northwestern University Medical School, 1942 to present.*

A duty and responsibility of the family physician is to guide and direct hard of hearing and deafened patients away from useless treatment and lower the possibility of alleviation or cure when such exists.

Complete deafness is rare and is always due to destruction of the perceptive mechanism in the ear. Nothing can be done except special training in lip reading and speech.

Impaired hearing may be due to lesions of the sound conduction apparatus or perceptive mechanism and in each case appropriate tests indicate the location of the pathology. As a rule lesions of the perceptive mechanism are not amendable to treatment, but efforts should be made to remove any etiological factor to prevent further loss. On the other hand impaired hearing due to lesions of the conductive apparatus can be improved or restored at the present time in the majority of cases by appropriate medical or surgical means. These treatments, including the Fenestration Operation for Otosclerosis will be briefly described, and the results of these treatments in a series of cases will be presented.

**2:00 "Pyogenic Infections of the Skin, Particularly Hidradenitis Suppurative"**
LOUIS A. BRUNSTING, M.D., Rochester, Minnesota

LOUIS A. BRUNSTING

*Consultant in Dermatology and Syphilology, The Mayo Clinic and Associate Professor in Dermatology and Syphilology, The Mayo Foundation, University of Minnesota Graduate School at Rochester, Minnesota. Born July 7, 1900, at Grand Rapids, Michigan; attended John Calvin College and Grand Rapids Junior College; M.D. in 1924, University of Michigan; intern at Blodgett Memorial Hospital, Grand Rapids, and practiced in Nashville, Michigan, for nine months. Entered the Mayo Foundation as a Fellow in Dermatology and Syphilology April 1, 1926, and received the degree of M.S. in Dermatology and Syphilolgy in 1929 from the University of Minnesota. Member of American Dermatological Association, American Academy of Dermatology, Society for Investigative Dermatology, Minnesota and Chicago Dermatological Societies.*

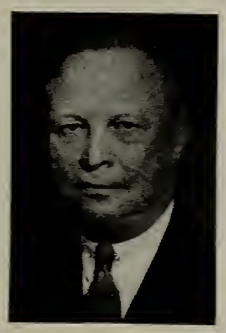
In the study of pyogenic disorders of the skin there has been, in general, too much emphasis on the invading organisms and too little on the host or on the qualities that make up a favorable soil. This paper emphasizes a not uncommon form of pyoderma

known as hidradenitis suppurativa which is characterized by chronic and recurrent burrowing abscesses and sinuses of the apocrine-gland bearing zones of the body, the axillæ, inguinal folds, genitalia, perineum, perianal regions and, in obese females, the lower half of the dependent breasts. Treatment must be individualized to include measures of general hygiene, the use of sulfonamide drugs, roentgen therapy and often surgical excision and grafting of the sites.

**2:30 Intermission to View Exhibits**

**3:00 "Newlyborn Period as a Public Health Problem"**

CLIFFORD G. GRULEE, M.D., Evanston, Illinois



CLIFFORD G. GRULEE

*M.D. Northwestern University Medical School, 1903; has taught at Rush Medical College since 1908; Head of Department from 1919 on; now Rush Professor of Pediatrics, Medical School of the University of Illinois; during World War I was Assistant Chief of the Children's Bureau, American Red Cross in France; since 1924, Chief Editor of the American Journal of Diseases of Children; since 1929, Secretary, American Academy of Pediatrics.*

The problem of the care of the newborn has changed so rapidly in the last few years with the increase of hospital care for deliveries that new problems have to be met and new situations encountered. As a consequence we must review the whole problem of the care of the newlyborn infant with this in view. Mortality statistics show some reduction but not sufficient. The matter of maternal nursing is one of the most serious problems to be met and conquered. Other conditions such as epidemic diarrhea, impetigo, septicemia and especially prematurity must be considered and ones which must be met with all newer factors in view. Question of the newborn nursery and the place of the public health authorities in control are subjects for our examination.

**ACKNOWLEDGMENT. The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.**

**3:30 "Significance of Unresolved, Organizing, or Protracted Pneumonia"**

J. BURNS AMBERSON, JR., M.D., New York, New York

J. B. AMBERSON, JR.

*Ph.B., Lafayette College, 1913; M.D., Johns Hopkins Medical School, 1917. At present, Professor of Medicine, College of Physicians and Surgeons, Columbia University; Visiting Physician in Charge, Tuberculosis Service, Bellevue Hospital; President of the National Tuberculosis Association.*

The various clinical pictures of recurrent, unresolved and protracted pneumonia which frequently masks some underlying condition will be discussed. The term atypical pneumonia which is used so much, may be used to label the case which is atypical not so much because of the nature of the infection as of some more important mechanism. Such cases include: bronchiectasis, carcinoma of the bronchus, benign tumors of the bronchus, tuberculosis of the bronchus, foreign bodies, broncho-esophageal fistulæ, oil pneumonia and other conditions. I shall plan to point out how such conditions may be suspeoted and identified.

**4:00 "Postoperative Gastro-intestinal Disturbances"**

CHARLES B. PUESTOW, M.D., Chicago, Illinois

CHARLES B. PUESTOW

*B.S., U. of Wisconsin, 1923; M.D., University of Pennsylvania, 1925; intern at U. of Pa. Hospital, two years. First assistant to C. H. Frazier, Professor of Surgery, U. of Pa. Fellow in Surgery, Mayo Foundation, four years. Master of Science in Experimental Surgery, 1931, and Ph.D. in Surgery, 1932, University of Minnesota. Since 1931 member of faculty U. of Illinois College of Medicine, and Surgeon to the Illinois Research and Educational Hospitals. Since 1937, Associate Professor of Surgery, University of Illinois, College of Medicine and Graduate Medicine. Writer of numerous medical articles and books.*

Disturbances of gastrointestinal motility comprise some of our most distressing morbidity factors. These consist of nausea, vomiting, distention, and fas pains. These are chiefly the result of altered intestinal peristalsis and are influenced by a variety of factors, among which are: types and depth of anesthesia; mechanical trauma to the gastrointestinal tract; fluid balance; the nature and time of the initiation of postoperative feeding; and the influence of drugs. Studies have been made on these various factors which we believe shed some light on the causes and methods of prevention of such surgical complications.

**4:30 End of Seventh General Assembly**
**END OF CONVENTION**

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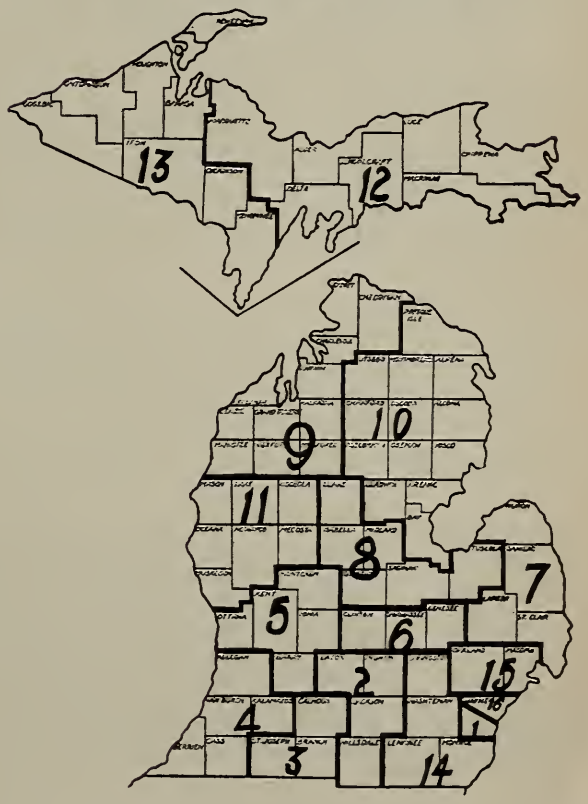
## Map of Councilor Districts of the Michigan State Medical Society



# TECHNICAL EXHIBITS

**Abbott Laboratories** **Booth No. E-9**
**North Chicago, Illinois**

You are heartily invited to visit this comprehensive display of Abbott specialties including a wide range of vitamin products, Metaphen, Sulfonamides, Pentothal Sodium, Arsenicals, Estriol, Estrone, et cetera. Abbott-trained representatives will be glad to exchange notes with you regarding the newer items on display.

So! Stop in and see us!

**A. S. Aloe Company** **Booth No. E-16**
**St. Louis, Missouri**

Aloe will exhibit a cross-section of their complete line of surgical, laboratory and physiotherapy equipment. Featured will be American made stainless steel instruments and newly developed specialties. Michigan representatives, T. T. Boufford and E. E. Davis will be in attendance.

**Audiphone Company** **Booth No. A-13**
**Of Detroit and Grand Rapids**

An exhibit showing the new Western Electric Ortho Tronic Vacuum Tube Hearing Aid; the Western Electric 6B Diagnostic Audiometer; One Western Electric 4C Group Audiometer and the 3A Electrical Stethoscope.

**Baker Laboratories** **Booth No. C-3**
**Cleveland, Ohio**

"Baker's complete line of infant foods will be on display. Baker's Modified Milk, available in both the powder and liquid forms, is a completely prepared milk formula for the bottle-fed baby. Melcose, also a completely prepared milk, is very economical. Melodex (maltose and dextrin) is a carbohydrate, made especially for modifying fresh or evaporated milk formulas."

**Bard-Parker Company, Inc.** **Booth No. E-21**
**Danbury, Connecticut**

The following products will be exhibited at the Bard-Parker booth: Rib-Back Surgical Blades, Long Knife Handles for deep surgery, Renewable Edge Scissors, Formaldehyde, Germicide, and Instrument Containers, Transfer Forceps, Hematological Case for obtaining bedside blood samples, Ortholator for obtaining accurate dental radiographs.

**Barry Allergy Laboratory** **Booth No. B-6**
**Detroit, Michigan**

Allergy skin testing by rapid, time-saving methods will be demonstrated at the Barry Allergy Laboratory's booth, as well as several new products which are associated with allergy.
Having specialized in this field for the last ten years and maintaining a medical reference library on allergy, it will be a pleasure to assist in any allergy problems and furnish definite medical references.

**Becton, Dickinson & Co.** **Booth No. C-9**
**Rutherford, New Jersey**

Becton, Dickinson will have on display standard lines of hypodermic syringes, needles, Ace Bandages, thermometers and diagnostic instruments. The attendants will be fully versed in the latest information as to the availability of supplies of this nature and will welcome your questions.

**The Borden Company** **Booth No. B-20**
**New York City**

For news about Borden's scientifically designed infant foods, visit Booth No. B-20. **Biolac**—a complete formula except for vitamin C. **New Improved Dryco**—provides increased potencies of vitamins A and D, quicker solubility, and maximum formula flexibility. **MULL-SOY**—emulsified food for infants allergic to milk, readily digestible, exceptionally palatable. Also **Beta Lactose, Klim, Merrell-Soule Powdered Milks,** and **Borden's Silver Cow Irradiated Evaporated Milk.**

**Ernst Bischoff Company** **Booth No. D-9**
**Ivoryton, Connecticut**

**Activin,** the first American produced shockless foreign protein for nonspecific therapy.
**Anayodin** is an effective, nontoxic amebicide. It attacks the amebas which have penetrated the tissues.
**Diatussin,** the original drop-dose cough remedy with a thirty-five year record of efficacy.
**Lobelin-Bischoff,** a direct stimulant to the respiratory center. The resuscitant indicated in all forms of respiratory failure or depression.
**Sas-Par,** Antipruritic. Oral treatment for psoriasis.

**Bruce Publishing Company** **Booth D-8**
**Saint Paul, Minnesota**

**Burroughs Wellcome & Co. (U.S.A.) Inc.**
**New York, New York** **Booths No. C-11, C-13**

Burroughs Wellcome & Co. (U.S.A.) Inc., New York, will exhibit at Booths Nos. C-11 and C-13 a representative group of fine chemicals and pharmaceutical preparations, together with important therapeutic agents that will be of interest to the medical profession.

**Cameron Heartometer Company** **Booth No. D-17**
**Chicago, Illinois**

The Cameron Heartometer Company is showing the improved Heartometer, a scientific precision instrument for accurately recording systolic and diastolic blood pressures. It also furnishes a permanent graphic record of the pulse rate, the nervous functioning of the heart, the myocardial strength, as well as the functioning of the valves. The Heartometer clearly reveals heart disturbances in both early and advanced stages and is of great value in checking the progress of medication and treatments.

**Cameron Surgical Specialty Company** **Booth No. C-18**
**Chicago, Illinois**

See the new Cameron Flexible Gastroscopes, Binocular Prism Loupes, Color-Flash Clinical Camera, the Mirrolite and latest developments in electrically lighted diagnostic and operating instruments for all parts of the body. Of special interest are the new Spark Gap & Tube Electro-Surgical Units for cutting, coagulating, desiccation, fulguration and orificial ultra-violet therapy in all sizes from the office model Cauteradio to the combination major surgical Hospital United with an abundance of power for the most radical work.

**S. H. Camp & Company** **Booth No. B-14**
**Jackson, Michigan**

S. H. Camp and Company, Jackson, Michigan, will show a series of anatomical drawings by Tom Jones as the central theme of their exhibit. There will be included also a display of the anatomical supports carried by the company's authorized dealers who are equipped to serve patients for the various supports prescribed by physicians for prenatal, postnatal, hernial, sacro-iliac, lumbosacral, visceroptosis and other specific conditions. Experts from the Camp staff will be in attendance to answer questions.

**Ciba Pharmaceutical Products, Inc.**
**Summit, New Jersey** **Booth No. A-5**

Physicians are cordially invited to visit Booth A-5 where the well-known specialities of Ciba Pharmaceutical Products, Inc., will be displayed. A representative of the firm will be in attendance and will be glad to answer any questions concerning the products displayed.

**Cottrell-Clarke, Inc.** **Booth No. D-11**
**Detroit, Michigan**

Cottrell-Clarke, Inc., Michigan's progressive record and physicians' stationery folks, say all the words in the world cannot adequately describe their extended showings of records designed to meet the record needs of every medical man, hospitals (large and small) and various phases of public health work, for they range from simple common record cards and record sheets, case record envelopes to Cottrell-Clarke's new "expanso" record cards and to the Cottrell-Clarke Manufile binder-folders.

**Cream of Wheat Corporation** **Booth E-7**
**Minneapolis, Minnesota**

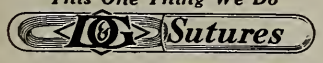
The Cream of Wheat Corporation will exhibit "Enriched 5-Minute" **Cream of Wheat.** This improved cereal is completely cooked in five minutes and has been enriched with additional Vitamin $B_1$ (Wheat Germ and Thiamin), iron, calcium, and phosphorus.

**R. B. Davis Company** **Booth No. E-3**
**Hoboken, New Jersey**

Don't fail to stop at the Cocomalt booth for a nourishing refreshment. This very palatable malted food dring is fortified with Vitamins A, $B_1$ and D as well as the minerals calcium, phosphorus and iron. There's lots of energizing nourishment in each mouthful.

**Davis & Geck, Inc.** **Booth No. A-8**
**Brooklyn, New York**

*"This One Thing We Do'*




Davis & Geck, Inc. will display its complete line of sterile sutures including a comprehensive group armed with swaged-on Atraumatic needles and designed for specific surgical procedures.
A further feature of this exhibit will be a motion picture theatre in which a diversified program of surgical films, in full color, will be presented. The following subjects will be shown on Wednesday:

8:30 A. M. **Internal Wiring of Jaw Fractures**—With Note on External Bar Fixation
Drs. James Barrette Brown and Frank McDowell, Washington Univ. School of Med.

8:50-9:30 A. M. **Cancer of the Female Breast**—Diagnosis and Treatment
Dr. Frank E. Adair, Memorial Hospital, New York.

10:30-11:00 A. M. **War Wounds**—Skin Grafting of War Wounds and Observation of Healing
Dr. John M. Converse, American Hospital in Britain.

12:30 P. M. **Hernioplasty**—For Direct Inguinal Hernia
Dr. Lawrence S. Fallis, Detroit.

12:45-1:30 P. M. **Surgery of the Common Bile Duct**
Dr. Chas. B. Puestow, Univ. of Illinois School of Medicine.

2:30 P. M. **Intrathoracic Goiter**
The Lahey Clinic, Boston.

2:45-3:00 P. M. **Splenectomy**—For Banti's Disease
Drs. Roy D. McClure and Lawrence S. Fallis, Detroit.

3:30 P. M. **Obstructive Resection**—With Complementary Cecostomy
Dr. Fred W. Rankin, Lexington, Kentucky.

3:45 P. M. **Modified Mikulicz Operation.** Right colectomy for carcinoma of the cecum
Dr. Richard B. Cattell, Boston.

4:15 P. M. **Surgical Treatment of Varicose Veins**—with High Ligation and Individualized Stripping and Excision
Dr. Henry N. Harkins, Detroit.

4:35 P. M. **Purposeful Splinting**—Following Injuries of the Hand.
Drs. Sumner L. Koch, Michael L. Mason, Harvey S. Allen, Chicago.

4:50 P. M. **Manchester Operation,** (Donald-Fothergill operation) for Uterine Prolapse.
Dr. Louis E. Phaneuf, Boston.

5:15-5:45 P. M. **Abdominal Complete Hysterectomy** for Fibroids
Dr. Arthur H. Curtis, Northwestern Univ. Medical School.

Programs for succeeding days and information regarding the booking of films from the Surgical Film Library for local groups may be obtained from the Davis & Geck representatives in attendance at Booth A-8.

**DePuy Manufacturing Company** **Booth No. D-13**
**Warsaw, Indiana**

DePuy Manufacturing Company will exhibit modern fracture appliances. An interesting feature will be the Lorenzo Lag Screw for hip fractures—the Pease Bow and beaded wire for internal fixation of shaft bones—a large plaster cutter for removing body plasters—splints and bone instruments of various descriptions.
You will be welcome at the DePuy Booth. Mr. C. F. Klingel will be in charge.

**Detroit Creamery Company** **Booth No. D-16**
**Detroit, Michigan**

The Detroit Creamery Company and its associated companies in Michigan will sponsor the "Sealtest, Inc." exhibit. The exhibit will emphasize the work of the Sealtest System of Laboratory Protection in maintaining high standards of quality and purity in milk and ice cream products.

**Detroit X-Ray Sales Company**
**Detroit, Michigan** **Booths No. B-13, B-15**

Some new and interesting developments in x-ray apparatus will be displayed at the Detroit X-Ray Sales Company's booth. Among these will be a Navy Mobile Portable unit supplied to the United States Navy, and a complete line of Mattern Shockproof X-Ray units employing the latest types of steel housing, oil immersed x-ray tubes, including the Dynamax with rotating anode.

**Doho Chemical Corporation** **Booth No. C-1**
**New York, New York**

The Auralgan Exhibit consists of a model of the human auricle four feet high together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

**Duke Laboratories, Inc.** **Booth No. B-9**
**Stamford, Connecticut**

Duke Laboratories, Inc., will display the Elastoplast Occlusive Dressings and Mediplast—both products are being used routinely in the treatment of minor injuries—cuts—burns and abrasions—in the large defense Industries, and various governmental units. Elastoplast, used whenever compression and support are required, will also be demonstrated in addition to the Prescribers' Cosmetics—Nivea Creme, Skin Oil and Basis Soap.

**E & J Resuscitator Company** **Booth D-20**
**Detroit, Michigan**

THE E. & J. RESUSCITATOR—Used in all cases of extreme shock, asphyxia, drownings, heart attacks, its application is simple. Instrument adjusts itself to any size lung, especially in the resuscitating of new born, thereby eliminating the human element and saving precious moments in an emergency.

**J. H. Emerson Company** **Booth C-20**
**Cambridge, Massachusetts**

Two new items will be introduced:
1. **Emerson Defense Unit**—An automatic breathing apparatus using oxygen or air. Developed recently for field use for both the Army and Navy, for Defense Industries, and Home Defense protection.
2. **Citrox**—A sterile ointment for healing skin tissue damaged by noninfectious irritations. Used effectively in leading maternity centers and in industries where industrial dermatitis is a problem. Samples will be available.

**H. G. Fischer & Company** **Booth No. E-11**
**Chicago, Illinois**

The best way to look at an x-ray apparatus is with an x-ray. You have to get under the finish. It's down there that the real difference lies. To every visitor at the Michigan State Medical Society convention, accordingly, we give this special invitation: Look under the finish of the new **Fischer** models of appartus shown! **Fischer** shockproof x-ray apparatus, short wave units, ultra violet and other generators are built both for performance and to stand the very hardest day-by-day usage. Demand to be shown the real under-the-finish facts about **Fischer** Models.

**C. B. Fleet Company** **Booth E-22**
**Lynchburg, Virginia**

Phospho-Soda (Fleet) has been an ethical product over half a century. It is a pure, stable, aqueous concentrate of the two U. S. P. phosphates. It is indicated in hepatic and gall-bladder dysfunctions, and when a thorough eliminating action is desired. It possesses rapidity and smoothness of action with marked absence of nausea, griping or tenesmus.

**General Electric X-Ray Corporation** **Booth A-7**
**Detroit, Michigan**

GENERAL ELECTRIC
X-RAY CORPORATION
3012 JACKSON BLVD. CHICAGO, ILL., U. S. A.

Through Peace and War — in good times and bad—vital, dependable x-ray equipment and reliable, nation-wide service, is ever our watchword. Our big job today is to help win the War. But at the same time the General Electric X-Ray Corporation is qualified and prepared to help you today, as well as to assist in your planning for tomorrow.

**Gerber Products Company** **Booth No. B-7**
**Fremont, Michigan**

Gerber Baby Foods have expanded until now there are two pre-cooked and dried cereals, one a wheat cereal and the other an oatmeal which is wheat-free, eighteen strained foods and ten chopped foods. The literature and professional reference cards are revised frequently and we invite you to inspect them.

**Hack Shoe Company** **Booth No. C-7**
**Detroit, Michigan**

Hack Shoe Company provides a prescription shoe service, individualized for the requirements of the particular case. Footwear on display at Grand Rapids will include tribalance shoes, Hack-O-Pedic shoes and Hack postoperative clubfoot shoes. The Hack fitting services fulfill the needs of men, women and children.

**Hanovia Chemical and Manufacturing Company**
**Newark, New Jersey** **Booth No. E-19**

The very latest in ultra-violet equipment will be demonstrated, including the outstanding uses of ultra-violet radiation in the fields of science, medicine and public health. Hanovia's Alpine Sun Lamps, with quartz burners, are accepted by the medical profession as the most effective of all ultra-violet sun lamps. Nearly 9 per cent of all ultra-violet lamps used by doctors and hospitals, the world over, are Hanovia made.

**J. F. Hartz Company** **Booths No. D-12, D-14**
**Detroit, Michigan**

The J. F. Hartz Company and its representative will have the pleasure of showing many of its fast growing lines of high grade pharmaceuticals as well as physiotherapy equipment, office furniture, and instruments.
Doctors and their assistants are cordially invited to visit our booth.

**H. J. Heinz Company** **Booth No. D-4**
**Pittsburgh, Pennsylvania**

The Heinz exhibit featuring Strained and Junior Foods merits your thoughtful attention if you prescribe for infant feeding or adults on soft diets. The popular Nutritional Charts have something new added—a section on the "Application of the Science of Nutrition to Dietetics." While you're at the exhibit, register for the 10th edition.

**Hoffmann-La Roche, Inc.** **Booth No. A-12**
**Nutley, New Jersey**

War shortages of atropine and belladonna have greatly increased physicians' interest in **Syntropan.** This antispasmodic will be one of the featured products in the Roche exhibit.

The many uses for which PROSTIGMIN has proven to be effective will also be described by representatives of the Roche Medical Division who will be in attendance. Other pharmaceutical prescription specialties emanating from Roche Park will also be displayed.

**Holland-Rantos Company, Inc.** **Booth No. D-2**
**New York, New York**

Modern contraceptive technique will be graphically illustrated with a motion picture and all the various materials including the Koromex and Hyva diaphragms, Koromex jelly and Emulsion cream, together with a complete line of contraceptive specialties will be demonstrated at the booth of the Holland-Rantos Company. Displayed also, will be the new Rantex Masks and Caps, now used by hospitals all over the country.

**J. L. Hudson Company** **Booth No. B-18**
**Detroit, Michigan**

This interesting display will consist of a bedroom completely furnished as near nonallergic as available furnishings will permit.

**The G. A. Ingram Company** **Booths No. D-1, D-3**
**Detroit, Michigan**

The G. A. Ingram Company extends an invitation to all visitors at the Michigan State Medical convention to make Booths D-1 and D-3 their headquarters and, especially, to investigate the new line of diagnostic instruments shown there. The latest in electrical equipment will also be shown.

**"The 'Junket' Folks"**
**Chr. Hansen's Laboratory** **Booth No. B-16**
**Little Falls, New York**

Enlarged photos illustrate graphically the action of the rennet enzyme in forming softer finer milk curds. Display of "Junket" Brand Food Products. Free literature describes dietary uses of rennet-custards in infant, child, convalescent, or post-operative feeding. Well-informed attendant on duty at all times.

**The Kellogg Company** **Booth No. E-6**
**Battle Creek, Michigan**

All Kellogg ready-to-eat cereals either are made from whole grains or are restored to whole grain nutritive value.
Kellogg's Pep, in addition to being restored to whole grain value, has been fortified with vitamins $B_1$ and D. Corn Flakes and Rice Krispies may be included freely in wheat-free and low residue diets. Read the reprints of reports covering recent research with bran.

**A. Kuhlman & Company** **Booth No. A-15**
**Detroit Michigan**

The Kuhlman display will consist of a selected line of diagnostic instruments, a special line of indwelling catheters, cystoscopes, urologic instruments, pneumothorax apparatus, and a general line of instruments and accessories for physicians and surgeons.

**Lea & Febiger** **Booth D-10**
**Philadelphia, Pennsylvania**

At space D-10 Lea & Febiger will exhibit among their new works Wintrobe's "Clinical Hematology," Craig's "Diagnosis of Protozoan Diseases," Thorndike's "Manual," Katz' "Electrocardiography and Exercises in Electrocardiographic Interpretation" and Rowe's "Elimination Diets." New editions will be shown of Gray's "Anatomy," Master on the "Electrocardiogram," Kovacs' "Electrotherapy," Knowles on "Diseases of the Skin," Werner's "Endocrinology," Gifford's "Ocular Therapeutics" and other standard works.

**Lederle Laboratories, Inc.** **Booth No. E-2**
**Chicago, Illinois**

We are pleased to invite the attention of the physicians attending to our complete line of outstand-

ing Vitamin B Complex preparations. These are available in the parenteral form, and for oral medication the liquid capsules and the highly potent tablet.

**Libby, McNeill & Libby** **Booth No. B-3**
**Chicago, Illinois**

"Libby's Baby Foods are of special interest to pediatricians because they are not only strained, like other baby foods, but first strained and then **specially homogenized.** This exclusive Libby process breaks up coarse cells and fibers, making foods **extra easy to digest.** The American Medical Association's Council on Foods and Nutrition accepts the statement that Libby's Baby Foods are extra easy to digest."

**Liebel-Flarsheim Company** **Booth B-17**
**Cincinnati, Ohio**

The well-known L-F Short and Ultra-Short Wave Generators . . . as well as the famous Bovie Electrosurgical Units will be on display. Other new and interesting physical therapy apparatus and accessories will also be shown and it will be a pleasure to demonstrate this modern equipment to you.

**Eli Lilly and Company** **Booth No. E-1**
**Indianapolis, Indiana**

The Lilly exhibit is evidence of the interest of Eli Lilly and Company in the Michigan State Medical Society. Lilly products both old and new will be on display and Lilly representatives will be present to serve physicians in every possible way.

**J. B. Lippincott Company** **Booth No. A-9**
**Philadelphia, Pennsylvania**

Among the interesting new works on display at the Lippincott exhibit are Ferguson's "Surgery of the Ambulatory Patient" and Geschickter's "Diseases of the Breast." The new Cooke's "Essentials of Gynecology" and Kampmeier's "Syphilology" will also be featured as well as Strecker's "Essentials of Psychiatry."

**M. & R. Dietetic Laboratories** **Booth No. C-2**
**Columbus, Ohio**

M & R Dietetic Laboratories, will display Similac, a food for infants deprived partially or entirely of breast milk; also powdered SofKurd. Mr. F. H. Behncke and Mr. L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application of these products.

**McKesson Appliance Co.** **Booth No. C-5**
**Toledo, Ohio**

The McKesson Appliance Company invites you to come to its booth with your service problems. During the present emergency we advise careful upkeep of all your equipment, and if we can be of any help to you, do not hesitate to call upon us. We will display our equipment as usual.

**McNeil Laboratories, Inc.** **Booth No. E-8**
**Philadelphia, Pennsylvania**

A cordial invitation is extended to physicians to visit the McNeil booth where digitalis duo-test and the newer Council accepted products will be shown. Trained members of the staff will be present to explain and discuss these latest additions to the McNeil lines.

**Mead Johnson & Company** **Booths No. A-1 & A-2**
**Evansville, Indiana**

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booths A-1 and A-2 will be time well spent."

**Medical Arts Surgical Supply Co.**
**Grand Rapids, Michigan** **Booths No. B-8, B-10, B-12**

In the Medical Arts Surgical Supply Company we will display Physicians and Surgeons Equipment, including Liebel-Flarsheim Short Waves, Hamilton Furniture, Castle and Pelton Lights and Sterilizers. Medical Arts Laboratories displaying pharmaceuticals manufactured in our own laboratory in Grand Rapids. Mr. R. Johnson in charge.

**Medical Case History Bureau** **Booth No. A-10**
**New York, New York**

Representatives will demonstrate patient's history record charts, for both general practice and all specialties; also simple and efficient bookkeeping cards. Of special interest is the unique method by which interesting cases may be cross-indexed according to the disease directly on the patient's history chart.

**Medical Protective Company** **Booth No. C-16**
**Fort Wayne, Indiana**

The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there. They are thoroughly trained in Professional Liability underwriting.

**Mellin's Food Company** **Booth No. E-13**
**Boston, Massachusetts**

Physicians are cordially invited to call and make inquiries regarding details of composition and application of Mellin's Food. During the seventy-five years of its existence Mellin's Food has so well established itself as to be worthy of consideration in any attempt to arrange nourishment for infants, children and adults.

**The Mennen Company** **Booth No. B-11**
**Newark, New Jersey**

The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their saving and after-shave products.
Our medical representative, Mr. David Storms, will attend this convention.

**Merck & Company** **Booth No. A-6**
**Rahway, New Jersey**

War medicine and public health requirements have focused particular attention on the antibacterial properties of the sulfonamides, the nutritional value of the vitamins, and the antisyphilitic value of the Arsphenamines and Tryparsamide.
Literature on all of these important products is available at the Merck booth, where Mr. S. A. Gaffney will be in charge.

**Wm. S. Merrell Company** **Booth C-10**
**Cincinnati, Ohio**

The Merrell exhibit will feature clinical data demonstrating the effectiveness of oral vaccination with Oravax in reducing number, severity, and duration of colds, as reported in current medical literature. Oravax offers the physicians an opportunity to contribute man-hours of production to the war effort by protecting colds-susceptible individuals against this greatest cause of disability.

**Michigan Medical Service** **Booth No. E-20**
**Michigan Hospital Service**
**Detroit, Michigan**

Full information will be available about Michigan Medical Service in this featured exhibit of the results of the operation of the doctors' prepaid group medical service program.
There will also be an interesting display of the companion hospital service plan of Michigan Hospital Service.

**C. V. Mosby Company** **Booth No. B-5**
**St. Louis, Missouri**

The C. V. Mosby Company extends a cordial invitation to all doctors attending the Michigan State Medical Society convention to visit Booth No. B-5 where they may inspect the many titles which will be displayed. Outstanding new volumes on surgery, orthopedics, heart diseases, ophthalmology, obstetrics and gynecology, x-ray, materia medica and pediatrics will be shown.

**The National Livestock and Meat Board**
**Chicago, Illinois** **Booth No. D-19**

The National Live Stock and Meat Board will display a large Nutrition Yardstick, similar to the small one which has just been completed. On this they will show how a diet, based on the pattern set up by the National Nutrition Program, meets all the nutritional requirements. The small Yardstick will be shown, together with charts and literature prepared in the interest of the National Nutrition Program.

**Parke, Davis & Company**
**Detroit, Michigan** **Booths No. C-15, C-17, C-19**

Featured in the Parke-Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride Preparations.

**The Pelton & Crane Company** **Booth No. D-7**
**Detroit, Michigan**

The Pelton & Crane Company will feature office size Autoclave Sterilizers, complete Cabinet Models, and specialized Operating Lights. Be sure to see the Pelton Localite, designed especially for ear, nose, and throat work.

**Pet Milk Company** **Booths No. E-15, E-17**
**St. Louis, Missouri**

An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

**Petrogalar Laboratories** **Booth No. B-2**
**Chicago, Illinois**

Physicians are cordially invited to visit the Petrogalar exhibit where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be related. Beautifully colored anatomical drawings and new literature may be had upon request from our professional representatives who will be in constant attendance.

**Philip Morris & Co. Ltd.** **Booth No. A-14**
**New York, New York**

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

**Philosophical Library** **Booth No. A-10**
**New York City**

"War Medicine," the product of the work of more than fifty experts of standing, will be displayed—along with other important publications on the practice of medicine in wartime—at the MSMS Annual Meeting. These symposia satisfy a great need in a rapidly expanding field.

**Picker X-Ray Corporation** **Booth No. A-11**
**New York, New York**

Visitors to the Picker X-Ray Corporation's booth will have an opportunity of seeing the United States Army X-ray Field Unit. The unit will be shown set up as packed in standard Army chests as well as a portable. This equipment is designed for radiography, fluoroscopy, superficial therapy and foreign-body localization. The localizer attachment, designed for the purpose of speedy localization of foreign objects in the body under wartime conditions, is of universal interest. There will also be on display a gasoline-electrical generator to supply this Army unit with power independent of community lines.

**Procter & Gamble** **Booth No. E-14**
**Cincinnati, Ohio**

"What makes soap mild?"
What are the new, accepted techniques for testing soap? What should you look for in a soap for your patients? Visit Booth No. E-14, where a member of Procter & Gamble's scientific staff will be glad to answer these questions.

**Professional Management** **Booth No. E-4**
**Battle Creek, Michigan**

During our **ten years** of service to Michigan doctors we have designed hundreds of **personalized record systems,** as well as maintaining psychologically correct **collection management** right in the clients' own offices. You are cordially invited to make this booth your headquarters during the sessions, ask questions if you like, and help yourself to reprints on **The Business Side of Medicine.**

**Randolph Surgical Supply Company**
**Detroit, Michigan**
**Booths No. C-12, C-14**

An exhibit keyed to the present emergency period will be presented by the Randolph Surgical Supply Company. First aid equipment, surgical instruments and a varied assortment of the latest in diagnostic devices, designed to aid the busy practitioner, will be featured. An interesting group of new medical furniture will also be displayed emphasizing the value of the "extra room" to better facilitate treatment of patients. Representatives in attendance will include Clifford Randolph, Harold Storm, Theodore Ward and Arthur Rankin.

**Frank N. Ruslander** **Booth No. E-18**
**Detroit, Michigan**

This exhibit will feature Medical Photography as an aid to the practice of medicine.
It will demonstrate the use of photographs in illustrating textbooks, case histories, etc., and the teaching of students.
A display of color photographs will also be shown.

**S. M. A. Corporation** **Booth D-22**
**Chicago, Illinois**

Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S.M.A. Corporation. Physicians who visit this exhibit at Booth No. D-22 may obtain complete information, as well as samples, of S-M-A Powder and the special milk preparations—Protein S-M-A (Acidulated), Alerdex and Hypo-Allergic Milk.

**W. B. Saunders Company** **Booth No. B-1**
**Philadelphia, Pennsylvania**

This publishing house will have an unusually attractive exhibit in which will be displayed many new books and new editions of particular importance now. They will include the six Official Military Surgical Manuals, the new (1942) Mayo Clinic Volume, Lundy's "Anesthesia," Walters, Gray & Priestley's "Carcinoma of the Stomach," Duncan's "Metabolic Diseases," Johnstone's "Occupational Diseases," Surgical Practice of the Lahey Clinic, Kolmer & Tuft's "Clinical Immunology, Biotherapy and Chemotherapy," Cutler's "Diseases of the Hand," Weiss & English's "Psychosomatic Medicine," Stieglitz's "Geriatrics," and new editions of Beckman's "Treatment," Christopher's "General Surgery," Sollmann's "Pharmacology," Boyd's "Surgical Pathology," and Curtis' "Gynecology."

**Schering Corporation** **Booth No. B-19**
**Bloomfield, New Jersey**

All the highly advanced Schering hormones are on display at the Schering exhibit, which is practically a survey of recent endocrine progress. In addition, there are other interesting products such as **Sulamyd** (Sulfacetimide) for the treatment of urinary tract infections, and **Sulfadiazine-Schering,** most effective sulfonamide for pneumonia. Representatives will be present to discuss your problems and distribute interesting and valuable literature and souvenirs.

**Scientific Sugars Company** **Booth No. D-6**
**Columbus, Indiana**

Scientific Sugars Company will display Cartose, Hidex, and the Kinney line of nutritional products. A new preparation of interest to physicians will be featured.

**Sharp & Dohme** **Booth No. D-21**
**Philadelphia, Pennsylvania**

Sharp & Dohme will have their modern display at Booth No. D-21, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display pharmaceutical specialties including the new Liquid "Digitol" and Tablets "Digitol" which are clinically standardized on humans, "Delvinal" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Depropanex," and "Prohexinol." A cordial welcome awaits all visitors.

**Smith, Kline & French Laboratories**
**Philadelphia, Pennsylvania** **Booth No. B-4**
Smith, Kline & French Laboratories are displaying Benzedrine Sulfate Tablets, Benzedrine Inhaler and Pentnucleotide. A representative of the S.K.F. Professional Service Department will be glad to discuss the uses of these Council-accepted preparations with physicians visiting the exhibit.

**E. R. Squibb & Sons** **Booth No. C-22**
**New York, New York**
The Squibb Exhibit will feature a number of new Chemotherapeutic Specialties, as well as the latest additions to their line of Vitamin, Glandular and Biological Products. Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

**Frederick Stearns & Company**
**Detroit, Michigan** **Booths No. C-4, C-6**
Doctors are cordially invited to visit our attractive convention booths, to view and discuss outstanding contributions to medical science developed in the Scientific Laboratories of Frederick Stearns & Company.
Our professional representatives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrin Hydrochloride for intranasal use, Amino Acids for perenteral protein feeding, Mucilose for bulk and lubrication, Ferrous Gluconate, Potassium Gluconate, Gastric Mucin, Susto, Trimax, Appella Apple Powder, Nebulator with Nebulin A, and our complete line of Vitamin products.

**Wall Chemicals Corporation** **Booth D-5**
**Chicago, Illinois**
Wall Chemicals Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidified, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

**Westinghouse X-Ray Company, Inc.** **Booth D-15**
**Detroit, Michigan**
A translite exhibit of the newest developments in x-ray equipment.

**White Laboratories, Inc.** **Booth No. D-18**
**Newark, New Jersey**
White's prescription vitamins will be presented for your consideration. Here you may obtain the most recent findings concerning indications for vitamin therapy, properties of the various vitamins, and clinical data regarding White's Cod Liver Oil Concentrate and other Council-Accepted vitamin products.

**Winthrop Chemical Company, Inc.** **Booth No. C-8**
**New York, New York**
Winthrop Chemical Company, Inc., extends a cordial invitation to every member of the Michigan State Medical Society to visit its booth where representatives will gladly discuss the latest preparations made available by this firm. You will receive valuable booklets dealing with anesthetics, analygesics, antirachitics, antispasmodics, antisyphilitics, diagnostics, diuretics, hypnotics, sedatives, and vasodilators.

**John Wyeth & Brother** **Booths No. A-3, A-4**
**Philadelphia, Pennsylvania**
You are cordially invited to visit the John Wyeth & Brother Exhibit where its new Hemo-Guide, a modern aid to the diagnosis of anemia, will be on display.
Representatives will be pleased to answer questions or explain features of any of the Wyeth pharmaceutical specialties.

**Zimmer Manufacturing Company** **Booth No. E-5**
**Warsaw, Indiana**
Zimmer Manufacturing Company will exhibit its complete line of fracture equipment with C. A. Fisher in charge of the display. Notable improvements in bone fixation devices and instruments will be shown at this meeting.

In the Exhibit, order equipment generously at this time, because curtailment of civilian goods production will be felt seriously in a few months.

# Why Johnnie Walker is Two People

FANCY THAT! There really *are* two Johnnie Walkers—one Black Label (12 years old), one Red Label (8 years old). Two fine versions of one truly rich whisky. For Johnnie Walker is Scotch at its smooth, mellow best. One sip and you'll agree.

BORN 1820 . . .
*still going strong*

WHEREVER YOU ARE
IT'S SENSIBLE TO STICK WITH

JOHNNIE WALKER

BLENDED SCOTCH WHISKY

BLACK LABEL 12 YEARS OLD

Both 86.8 proof

RED LABEL 8 YEARS OLD

Canada Dry Ginger Ale, Inc., New York, N. Y., Sole Importer

## THE MICHIGAN POSTGRADUATE PROGRAM FOR GRADUATES IN MEDICINE, AUTUMN 1942

The Michigan State Medical Society, in coöperation with the University of Michigan Medical School, Wayne University College of Medicine, the Michigan Department of Health, and the Wayne County Medical Society, announces the extramural postgraduate courses for the autumn, 1942.

| Centers | Dates |
|---|---|
| Ann Arbor | October 8, November 12 |
| Battle Creek | October 6 and 21 |
| Flint | October 13 and 27 |
| Grand Rapids | October 12 and November 10 |
| Lansing | (dates to be announced later) |
| Mt. Clemens | (dates to be announced later) |
| Saginaw | October 13 and November 10 |
| Traverse City | October 14 and November 11 |

### Subjects

*First Day*

**4:00 P. M. Surgery of the Ambulatory Patient.**
The three methods of producing local anesthesia. The management of varicose veins and ulcers; excision of wens, warts, moles, cysts, birthmarks, and precancerous lesions. Minor infections of hand. Biopsies. Furuncles. Minor amputations. Ingrown toe-nail. Hydrocele. Circumcision. Fractures and sprains. Illustrated.

**5:00 P. M. The Modern Treatment of Cardiac Failure.**
The diagnosis of the normal heart. An explanation of the symptoms and signs of early heart failure in middle life, the methods of management of the potential cardiac, and cardiac decompensation. Dosage and indications for drugs.

**6:15 P. M. Dinner.**

**7:00-9:00 P. M. The "Acute Abdomen."**
Panel discussion by surgeon, gynecologist, and pediatrician.

*Second Day*

**4:00 P. M. Psychosomatic Medicine.**
The meaning of psychosomatic medicine in general practice. Gastro-intestinal disorders, cardiovascular symptoms, glandular disturbances, essential hypertension. The purpose and kind of therapy used.

**5:00 P. M. The Industrial Dermatoses and Fungus Disease of the Skin.**
Recognition and treatment.

**6:15 P. M. Dinner**

**7:00-9:00 P. M. The Accidents and Complications of the Newborn Period, and Post-partum Care.**
Panel discussion by a pediatrician and an obstetrician.

### Intramural Courses

**Nutritional and Endocrine Problems**.....November 2-5, inclusive
University Hospital, Ann Arbor

**Electrocardiograph Diagnosis**.....November 16-21, inclusive
University Hospital, Ann Arbor

**Urology**.....November 30-December 4, inclusive
University Hospital, Ann Arbor

The detailed program will be mailed to the physicians of the State early in the autumn.

For further information, address

Committee on Postgraduate Education
Michigan State Medical Society
Room 2040, University Hospital
Ann Arbor, Michigan

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
*Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

---

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# Announcement

The Neuro-Psychiatric Institute of the Hartford Retreat announces the following appointments to its professional and assisting staffs:

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Secretary, Board of Managers, and Assistant to Psychiatrist-in-Chief
Stella H. Netherwood, R.N.
Assistants to Psychiatrist-in-Chief
Barbara M. Adam
Mildred E. LaBombard
Adelaide L. Ray

### MEDICAL STAFF

Psychiatrist-in-Chief
C. Charles Burlingame, M.D., F.A.C.P.
Associate Psychiatrists
Leslie R. Angus, M.D.
H. Ryle Lewis, M.D.
Senior Psychiatrists
Ralph M. Stolzheise, M.D.
William G. Young, M.D.
Edward L. Brennan, M.D.
Percy L. Smith, M.D.
John W. Kinley, M.D.
Psychiatrists
Paul L. Phillips, M.D.
Robert L. Wagner, M.D.
Thomas G. Peacock, M.D.
Herbert M. Bowlby, M.D.
Charles E. Vigue, M.D.
Fellows in Psychiatry
A. Laurence Hessin, M.D.
Margaret D. Gleason, M.D.
Diodato Villamena, M.D.
Psychologist
Blake D. Prescott, B.A., M.A., M.D.
Research Associate in Psychiatry
John M. Cotton, M.D.
Research Associates in Electro-encephalography
Herbert H. Jasper, A.B., M.A., Ph.D., D.ésSc.
Wladimir Theodore Liberson, Ph.D., M.D.
Oculist
Harry St. C. Reynolds, M.D.
Gynecologist
Louis F. Middlebrook, M.D.
Roentgenologist
Gilbert W. Heublein, M.D.
Dentist
George B. Odlum, D.M.D.
Physicians, Employees' Health Service
William A. Wilson, M.D.
Joseph F. Jenovese, M.D.

### ASSISTING PROFESSIONAL STAFF

General Director of Nursing
Elsie C. Ogilvie, R.N.
Director of Nursing
Mary E. Curtis, B.N., R.N.
Director of Nursing Education and Associate Director of Nursing
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Rosalie M. Carroll, A.B.
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Introductor
Mary V. Cronin, R.N.
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Myrtle Henderson, R.N.
Assistant Director of Nursing Education
Martha D. Adams, B.A., M.N., R.N.
Assistant to Director of Nursing Education
Doyle D. Henrie, R.N.
Nursing Instructor
Helen L. Healey, R.N.
Nursing Supervisors
Regina A. Driscoll, B.A., R.N.
Erma J. Henrie, R.N.
Harold R. Towne, R.N.
Assistant Nursing Supervisors
Elizabeth O. Connors, R.N.
Mary Ellyn Dinneen, R.N.
Isabel McKenzie, R.N.
Night Superintendent
Margaret F. Sheller, R.N.
Chief of Laboratories
Marjorie A. Darken, B.S., M.A.
Assistant Psychologist
Margaret Fickel, B.A.
Laboratory Technician
Elizabeth Carpenter, M.T.
X-ray Technicians
Kathryn Marchand, R.N.
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Ella Wohlman, Ph.G.
Librarian & Translator, Jelliffe & Research Libraries
Mary B. Jackson, B.A., M.A.
Research Librarian, Jelliffe Library
Katherine Malterud, B.A., New York State Library School
Special Dietitian
E. Ruth Breen, Lesley School
Oral Hygienist
Josephine Sagan, Temple University School of Oral Hygiene
Chief, Medical Record Room
Katherine Sheehy, Eastman Business College
Assistant Chief, Medical Record Room
Norma Hill
Chief, Dietary Department
Armand L. Pelletier
Special Assistant
William M. Jennings
Comptroller
Henrietta L. Hills
Resident Auditor
Albert W. Stevens
Chief, Purchasing Department
Helen R. Schait, Certificate Pratt Institute
Personnel Manager
C. Pauline Kline
Employe Instructor
Anne F. Browne, R.N.
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Theresa R. Smith, B.S.
Assistant Manager of Graduate Clubs
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Carolyn C. Bronson, Art Students League of New York
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Ruth D. Tuttle, A.B., M.A.
Chief Instructor, University Extension Courses
Margaret L. Adams, A.B., M.A.
Instructor, University Extension Courses
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M. Josephine Kuzell, B.S.
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Phoebe L. Adams, A.B.
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Mildred K. Daisy, B.S.
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John W. Colton, Editorial Staff, Hartford Times
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Alexander Crane, Berkshire School of Art
Instructor and Modiste
Doris Runshaw
Instructor, Shorthand and Commercial Courses
Frances Nagl, B.A.
Instructor, Bridge
Theodosia Van Norden Emery, Master of Bridge and Director Culbertson National Studios
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Doris Gibbons, Russian School of Ballet Dancing
Nancy R. Ward, Arthur Murray School of Dancing
Senior Instructors, Arts & Crafts
Bertha M. White, School of Handicrafts and Occupational Therapy, Boston
Jane M. Cable, School of Handicrafts and Occupational Therapy, Boston
Instructor, Arts and Crafts
Ella A. Hillerstrom, School of Handicrafts and Occupational Therapy, Boston
Instructor, Manual Arts
Dorothy Badger Wells, Woodbury Training
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Helen L. Ronan, Pratt Institute School
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Paul Vellucci, Director Hartford School of Music
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M. Patricia Powers, B.S.
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# MICHIGAN'S DEPARTMENT OF HEALTH

H. ALLEN MOYER, M.D., Commissioner, Lansing, Michigan

## NEW OFFICE BUILDING

New Michigan Department of Health offices in a recently completed administration building on the northwest edge of Lansing give Michigan the most complete health center in the United States.

Erected with $135,000 of state funds, supplemented by WPA grants of labor and materials, the four-story structure provides accommodations for eleven of the Department's twelve bureaus. The Bureau of Laboratories is across Dewitt road from the administration building.

Plans for the new building, as originally drafted in 1938, contemplated the erection of a two-story and penthouse structure, to be financed by an original $50,000 appropriation voted by the 1937 Legislature, plus WPA aid. Ground was broken in May, 1940. A second appropriation of $85,000 was approved in 1941 for completion of the larger structure.

Completion of the building has been slowed in recent months by the impact of war, difficulty having been experienced in getting needed materials and in hiring skilled labor.

## WAR COMPLICATES TUBERCULOSIS PROBLEM

War is complicating the problem of tuberculosis control in Michigan. Routine examinations of the armed services are uncovering hitherto unsuspected cases. The intensified case finding program of the Michigan Department of Health is disclosing others. The state's twenty-three approved sanatoria already are practically filled. Several physicians closely identified with tuberculosis work in Michigan are in uniform. Others are to follow them.

Reduction of the staff at University Hospital, Ann Arbor, has stopped the transfer there for special treatment of patients from the state sanatorium at Howell. A University Hospital surgeon visits the Howell institution instead. In some instances, the commissioning of sanatoria directors may result in the closing of the institutions. Some shifting of patients may be unavoidable.

Already in the armed services, or soon to be commissioned, are Dr. Roger J. Hanna, superintendent of the Jackson county sanatorium; Dr. G. L. Leslie, formerly medical superintendent of the Michigan state sanatorium at Howell; Drs. J. C. Day and William M. Tuttle, chest surgeons for the hospitals of the Detroit Department of Health; and Dr. F. M. Doyle, assistant medical director of the Pine Crest sanatorium at Oshtemo.

## NEW HEALTH REGULATIONS

Fitting of shoes to stockingless feet and of foundation garments to women without underclothing is prohibited by action of the State Council of Health which seeks to prevent the spread of skin disorders.

Adopting regulations which have the effect of law, the Council through the Michigan Department of Health is notifying members of the Michigan State Shoe Dealers Association and the Michigan Retail Dry Goods Association that signs notifying the public of the prohibitions must be posted in conspicuous places in their establishments where this merchandise is sold.

As added protection for the public against the spread of athlete's foot infection, proprietors of bowling alleys and skating rinks are being notified that the renting of shoes is henceforth prohibited.

## CHILDREN OF MIGRANT WORKERS IMMUNIZED

Immunizing against diphtheria and smallpox of an estimated 10,000 children of migrant workers in sugar beet growing areas in 16 Michigan counties has been completed.

This was the first time that immunization of the children of migrant workers has been undertaken in Michigan. The work was done by practicing physicians and local health officers. The Michigan Department of Health and beet sugar producing organizations coöperated.

## PEAK MONTHS FOR POLIO

Emphasizing that outbreaks of poliomyelitis occur during the summer and early fall, Commissioner Moyer, in recent newspaper releases, called upon parents to be on the watch for the first signs of the disease. He stressed the necessity for prompt diagnosis followed by continued medical supervision in the treatment of polio.

Fifteen cases of the disease were reported to the Michigan Department of Health during the first half of this year. Last year fourteen cases were reported during the same period, but in the last six months of 1941 the total was increased by 256 cases with twenty-one reported in July, sixty in August, ninety in September and eighty-five in the remaining three months.

Department of Health records for other years also show upturns in the number of poliomyelitis cases in July, August and September and in some years outbreaks of the disease continued through October indicating that these are the months when parents should be particularly alert for the first danger signals.

WE MUST HAVE

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On the far-flung battle fronts . . .

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# LETTERS TO THE EDITOR

Lansing, Michigan
August 19, 1942

Roy H. Holmes, Editor
Michigan State Medical Society
888 First Street
Muskegon, Michigan

Dear Dr. Holmes:

We are enclosing Pamphlet No. 56, received from the government, regarding the Prescribing and Dispensing of Narcotics Under the Harrison Narcotic Law.

Of late we have been receiving a great number of inquiries on this subject and are wondering if you would print the outlined part of this law in your JOURNAL so that the dispensers of narcotics would be able to have a copy of this ruling.

Very truly yours,

L. A. WIKEL, Director of Drugs
and Drug Stores
Michigan Board of Pharmacy

**PAMPHLET NO. 56**

**Prescribing and Dispensing of Narcotics Under Harrison Narcotic Law**

The following outline of procedure to be observed in prescribing and dispensing narcotic drugs is issued for the guidance of registrants under the Harrison Narcotic Law, and others concerned. This pamphlet is intended to be advisory only and to anticipate and answer questions arising in the minds of practitioners concerning the law and regulations governing the prescribing and dispensing of narcotic drugs as interpreted by the courts.

The regulations governing this subject are contained in article 167, Regulations No. 5, and read as follows:

ART. 167. *Purpose of issue.*—A prescription, in order to be effective in legalizing the possession of unstamped narcotic drugs and eliminating the necessity for use of order forms, must be issued for legitimate medical purposes. The responsibility for the proper prescribing and dispensing of narcotic drugs is upon the practitioner, but a corresponding liability rests with the druggist who fills the prescription. An order purporting to be a prescription issued to an addict or habitual user of narcotics, not in the course of professional treatment but for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the meaning and intent of the act; and the person filling such an order, as well as the person issuing it, may be charged with violation of the law.

Detroit, Michigan
August 5, 1942

Editor, Journal MSMS
Muskegon, Michigan

Dear Sir:

Herewith is a copy of a letter I have written to J. A. Bechtel of the Wayne County Medical Society. I think this ought to have publicity among all the doctors.

Thanking you, I am

Sincerely yours,

JOHN L. LOVETT, General Manager
Michigan Manufacturers' Association

* * *

August 5, 1942

James A. Bechtel, Exec. Sec'y
Wayne County Medical Society
4421 Woodward Avenue
Detroit, Michigan

My dear Mr. Bechtel:

I am sure that all of us want to do everything we possibly can to win this war, and win it soon. It has been suggested to the Michigan Manufacturers' Association that the members of the medical society could be helpful in keeping men and women on the production jobs in the plants.

Absenteeism, especially among women, is tremendously high in some plants. And it is reported that some physicians are coöperating with the employes in promoting absenteeism rather than keeping the employes on production.

One plant reports as high as 20 per cent of its women employes being absent every day on excuses furnished by physicians who say the employes need rest or are suffering from some temporary ailment. A little superficial checking has revealed that in some cases at least the physician's diagnosis was not justified.

I appreciate that some physicians may want to coöperate with their patients, but where they are contributing to a high percentage of absenteeism, they are contributing to a slowdown of production.

I am writing you in the belief that all physicians are interested in keeping everybody on the job if they can. Industrial management would like the coöperation of all physicians in reducing absenteeism due to illness, and I am sure that you can be of great assistance to us in that respect. I am sure that no thoughtful physician would in any way want to hamper war production.

Thanking you, I am

Sincerely yours,

JOHN L. LOVETT, General Manager
Michigan Manufacturers' Association

## IN MEMORIAM

**Angus L. Cowan** of Detroit was born September 10, 1865, in Mayfair, Middlesex County, Ontario. He was graduated from the Detroit College of Medicine and Surgery in 1891. After graduation he practiced in Granby, Missouri, for nine years. In 1900 he returned to Detroit and engaged in general practice until his illness during the past year forced him to retire. Doctor Cowan had been a member of Wayne County Medical Society since 1906 and was made an Honorary Member, February 7, 1941. He was elected to Emeritus Membership of the Michigan State Medical Society, September 16, 1941. He died June 21, 1942.

---

**Theodore S. Crosby** of Ironwood was born October 24, 1879, in Corry, Pennsylvania, and was graduated from the Baltimore College of Physicians and Surgeons in 1905. He then studied in Berlin and Paris. After spending a year in private practice at Mt. Clemens, Doctor Crosby was employed for six years as head surgeon for the Barnum and Bailey circus. Later, he became house physician in a large New York hotel and then took a year of postgraduate work in the New York General Hospital. Doctor Crosby came to Wakefield and practiced there for fourteen years, not including the time spent in the army during the first World War. He was in service two years and overseas three months, being discharged as a major in the reserve corps. Doctor Crosby died at the Veterans Hospital at Milwaukee, July 24, 1942.

---

**Carl C. McClelland** of Detroit was born in the year 1879 in Jefferson, Ohio. After graduating from State Teachers College at Ypsilanti he became Principal of the Eaton Rapids High School, then the Benton Harbor High School, and late Superintendent of the Benton Harbor Schools. In 1906 he entered the University of Michigan Medical School where he obtained his degree in 1910. After a few months' practice in Detroit he took postgraduate work in the Eye and Ear Hospital of London and also in Vienna. Since 1912, Doctor McClelland has been a member of the staff of Grace Hospital where he was Chief Ophthalmologist from 1927 to 1939. He died July 30, 1942.

---

*To go about your work with pleasure, to greet others with a word of encouragement, to be happy in the present and confident in the future—this is to have achieved some measure of success in living.*—Edwin Osgood Grover.


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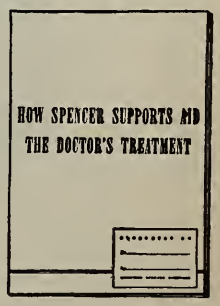


..... M.D.

Address .....

..... H-4

# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

*Roy Herbert Holmes, M.D.,* Editor of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, received the commission of Major in the Medical Corps of the U. S. Army and left for Fort Sam Houston, San Antonio, Texas, on September 4.

* * *

*The American College of Surgeons* will hold its 1942 Clinical Congress in Cleveland November 17 to 20, at the Cleveland Public Auditorium.

* * *

*M. R. Murphy, M.D.,* has resumed his practice in Cadillac after an honorable discharge from the Army because of a knee injury.

* * *

*In the American Medical Association Journal* for August 8, 1942, R. H. Freyberg, M.D., of Ann Arbor, published his "Treatment of Arthritis with Vitamin and Endocrine Preparations."

* * *

*"Hospital Standards for Crippled and Afflicted Children"* as approved by the Michigan Crippled Children Commission on June 3, 1942, are available by writing Carleton Dean, M.D., Director of the Commission, 458 Hollister Building, Lansing.

*LeMoyne Snyder, M.D.,* Lansing, has been appointed Deputy Chief of Emergency Medical Service, Michigan Council of Defense, to take the position left vacant by Lloyd H. Gaston, M.D., who has been commissioned as a Surgeon in the Reserve Corps of the USPHS.

* * *

*The eighth annual meeting* of the Mississippi Valley Medical Society will be held at Quincy, Illinois, September 30 and October 1, 2. The second annual meeting of the Mississippi Valley Medical Editors' Association will be held September 30 in Quincy.

* * *

*Massachusetts Medical Service.*—Following enabling legislation enacted in May, 1942, State Commissioner of Insurance Charles J. Harrington recently signed the papers granting a charter to "Massachusetts Medical Service," a statewide system of prepaid medical care sponsored by the Massachusetts Medical Society.

* * *

*Primary Election—September 15.*—This election is important to physicians because members of the Legislature (including the Lieutenant-Governor) will be nominated. The free practice

Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of *refreshment.*




*Say you saw it in the Journal of the Michigan State Medical Society*

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of medicine in Michigan depends to a startling degree on the Michigan State Legislature. Vote for friends of Medicine at the Primary, September 15.

* * *

*Tire Rationing.*—Of the 27 million cars in the United States, seven million will not be running by December 31—either broken down or their tires used up. How to keep the remaining twenty million running is a big problem as the average set of tires in all the country today has only 10,000 miles of remaining wear—thus remaining mileage will be reduced to only 4,000 by January 1, 1942.

* * *

*"The Physician's liability* for negligence of employes and servants arises from any act of negligence performed during and within the scope of their employment; but liability for negligent acts of agents is predicated only upon those derived as the result of delegated powers and performed within the scope of the agency thus established."—CARL SCHEFFEL, M.D., LL.B., The Utilization of Agents in the Practice of Medicine and Surgery.

* * *

*A "First-Aid Syllabus"* was presented before the medical personnel of the Casualty and First-Aid teams of the Flint Emergency Medical Services at St. Joseph's Hospital June 2. A record of the course was compiled by W. H. Marshall, M.D., Coördinator of Emergency Medical Education, and printed and distributed by the Genesee County Medical Society. The syllabus is a 24-page mimeographed edition, and makes very interesting and concise reading.

* * *

*Diagnostic Laboratory Service for Weil's Disease.*—The Bureau of Laboratories of the Michigan Department of Health has perfected the methods for laboratory aid in the diagnosis of spirochetal jaundice known as Weil's disease. The laboratories will receive specimens hereafter from physicians and health officers for that purpose. Blood specimens which are collected and shipped in the same manner as those for the Kahn test will be satisfactory for the examinations.

* * *

*The new Venereal Disease Control Law,* passed by the Michigan Legislature in February, 1942,

Advise the editor of your newspaper that you will be in Grand Rapids for the 77th annual meeting of the Michigan State Medical Society, September 23, 24, 25, 1942.

Bring your MSMS or AMA membership card, to facilitate registration.

The scientific and technical exhibit of 116 spaces is an educational opportunity of unusual interest and scope.

Remember—September 23, 24, 25, Civic Auditorium, Pantlind Hotel, Grand Rapids.



Say you saw it in the Journal of the Michigan State Medical Society

authorizes Health Officers and their deputies to conduct examinations of all persons arrested and charged with committing acts of prostitution and also to forcibly hospitalize infected individuals who refuse to comply with public health laws and regulations. Over twelve recalcitrant individuals have already been committed to institutions for treatment which they had refused, on authority of Act 6 of 1942.

* * *

*The Polio Consultation Service* of the Michigan Crippled Children Commission is available in 1942 for cases or suspected cases of polio in children from birth to twenty years of age (where the family is financially unable to provide this service and where consultation is not furnished locally).

The family physician should contact the Secretary of the county medical society, who has full information on the manner of obtaining a consultation.

* * *

*Specimen containers urgently needed.*—All physicians are requested to collect and return to the Bureau of Laboratories of the Michigan Department of Health, the tin screw-capped specimen containers. We can purchase no more of these containers. The postal regulations require that specimens sent to the laboratories must be mailed in double walled containers. These containers are needed urgently by our laboratories. Please collect all such containers as soon as possible and return them to the laboratories, Lansing, Michigan.

* * *

*Clarence W. Muehlberger, Ph.D.,* lecturer on Toxicology at the University of Michigan Medical School and Director of the Crime Laboratory maintained by the State Department of Health and the State Police, has joined the staff of Captain Donald S. Leonard, State Commander of the Citizens Defense Corps, as State Gas Consultant. Dr. Muehlberger is one of the guest-essayists on the MSMS program, in the Section on Radiology, Pathology and Anesthesia, Friday morning, September 25 (see page 780).

* * *

*MSMS Committee Chairmen* now in military service:

H. S. Collisi, M.D., Grand Rapids, Public Relations Committee.

Shattuck W. Hartwell, M.D., Muskegon, MSMS Distribution of Medical Care Committee.

M. R. Kinde, M.D., Battle Creek, Tuberculosis Control Committee.

Richard M. McKean, M.D., Detroit, Heart and Degenerative Diseases Committee.

J. Duane Miller, M.D., Grand Rapids, Industrial Health Committee.

A. R. Woodburne, M.D., Grand Rapids, Syphilis Control Committee.

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*Taxation on Accounts Receivable.*—The U. S. House of Representatives has completed action on the Revenue Act of 1942 (H.R. 7378) and has made an important change in connection with the taxation of Accounts Receivable on the books of a taxpayer at the time of death. Heretofore such accounts have been includable as income for the year of death, even though the taxpayer may have heretofore been on a cash receipts and disbursements basis.

Under the Revenue Act of 1942, such outstanding accounts will not be includable as income for the year of death of the taxpayer but will be subject to tax as collected, the tax being paid by the person who actually receives the sums collected.

Incidentally, the provision is made whereby the estate of taxpayers that have in past years suffered by reason of the unjust operation of the present law may obtain refunds.

* * *

*Special Membership in the MSMS.*—County Society secretaries have been invited to submit to the MSMS, NO LATER THAN SEPTEMBER 10, *names of any physicians for whom special memberships* (Emeritus, Retired, Associate) in the State Society *will be sought* at the 1942 House of Delegates' meeting in Grand Rapids. Certification of these names permits the Executive Office to ascertain in advance of the meeting whether the qualifications of each physician meet the requirements set by the MSMS Constitution.

Any proposed changes in the MSMS Constitution and By-laws, to be recommended at the 1942 House of Delegates' meeting should be referred to the Special Study Committee on Constitution and By-laws, no later than September 10. This courtesy will allow the Committee sufficient time to study the proposal in its relation to other provisions of the MSMS Constitution and By-laws.

* * *

*"Ubiquitous Hosts."*—The following Grand Rapids physicians have agreed to act as hosts to the thirty-two guest essayists who will appear on the State Society program of September 23, 24, 25 in Grand Rapids. The Society officers appreciate the valuable assistance of these ubiquitous hosts in helping to make successful the 1942 annual meeting: A. J. Baker, M.D., Wm. L. Bettison, M.D., James S. Brotherhood, M.D., Wm. J. Butler, M.D., Ward L. Chadwick, M.D., Burton R. Corbus, M.D., Fred Currier, M.D., R. H. Denham, M.D., Ralph Fitts, M.D., David Hagerman, M.D., Ruth Herrick, M.D., A. Morgan Hill, M.D., Robert Laird, M.D., G. H. Mehney, M.D., V. M. Moore, M.D., L. Paul Ralph, M.D., H. C. Robinson, M.D., L. J. Schermerhorn, M.D., Ferris Smith, M.D., A. B. Thompson, Jr., M.D., Wm. R. Torgerson, M.D., H. J. VanBelois, M.D., Henry J. VandenBerg, M.D., Jay R. Venema, M.D., Robert Laird, M.D., G. H. Mehney, M.D., of Grand Rapids.



*Say you saw it in the Journal of the Michigan State Medical Society*

*Monitors for the Section Meetings* as well as for the Discussion Conferences, to be held on the occasion of the 77th Annual Meeting of the Michigan State Medical Society in Grand Rapids, include:

John Besancon, M.D., Detroit; Leon C. Bosch, M.D., Grand Rapids; Russell deAlverez, M.D., Ann Arbor; Joseph DePree, M.D., Grand Rapids; Horace L. French, M.D., Lansing; Lewis Gomon, M.D., Saginaw; Faith W. Hardy, M.D., Grand Rapids; W. B. Harm, M.D., Detroit; Ruth Herrick, M.D., Grand Rapids; C. L. Hess, M.D., Bay City; J. W. Holcomb, M.D., Grand Rapids; Paul Kniskern, M.D., Grand Rapids; Harry Kok, M.D., Benton Harbor; Eugene Lange, M.D., Muskegon; F. H. Lashmet, M.D., Petoskey; V. S. Laurin, M.D., Muskegon; John W. Littig, M.D., Kalamazoo; M. C. Loree, M.D., Lansing; J. L. McKenna, M.D., Grand Rapids; K. W. A. McLeod, M.D., Lapeer; Gayle H. Mehney, M.D., Grand Rapids; Richard C. Norton, M.D., Battle Creek; D. J. O'Brien, M.D., Lapeer; O. W. Pickard, M.D., Detroit; C. S. Ratigan, M.D., Detroit; Torrance Reed, M.D., Grand Rapids; Arthur E. Schiller, M.D., Detroit; L. J. Schermerhorn, M.D., Grand Rapids; W. J. Scott, M.D., Grosse Pointe; Carl Snapp, M.D., Grand Rapids; John Volderauer, M.D., Kalamazoo; H. B. Zemmer, M.D., Lapeer.

The work of the monitor is important to the success of the Discussion Conferences and of the Section Meetings. The physicians so serving are thanked for their contribution of valuable time and effort.

* * *

PHYSICIANS IN CONTINENTAL U. S.
(JANUARY 31, 1942)

| | | | |
|---|---|---|---|
| Total Number | | | 176,200 |
| Ages: Under 36 | 42,700 | | |
| 36-44 | 38,200 | Total under 45 | 80,900 |
| 45-54 | 31,900 | Total under 55 | 112,800 |
| 55 and over | 63,400 | | |
| Scope of Practice | | | |
| General Practice | | | 86,000 |
| Full or Partial Specialists | | | 90,200 |
| Full Specialists (38,800); Partial Specialists (51,400). | | | |
| Auspices of Practice | | | |
| Private Practice (Some with part-time salaries) | | | 141,500 |
| Full-time Salaried Physicians | | | 33,500 |
| Hospital Positions | 16,500 | | |
| Including Administrators (3,100); Residents, Asst. Res. and Fellows (6,200); Interns (7,200). | | | |
| Government Positions | 9,800 | | |
| Federal (6,100); State (1,400); Local (2,300) | | | |
| Academic Positions (Teaching and Research) | 3,700 | | |
| Industrial Positions | 2,300 | | |
| Other Executive Positions | 1,200 | | |

—*Jour. AMA,* June 20, 1942.

* * *

*Military Membership in MSMS.*—Military membership in the State Society is granted to active members of the MSMS *in good standing* with State Society dues paid for a full year, who are serving their country in the armed forces of the United States; they will be relieved of paying MSMS dues during the period of such active service if recommended by the county medical society on special military member-


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ship blanks available from the MSMS Executive Office.

Physicians who have *not* paid 1942 MSMS dues *on or before April 1, 1942,* are suspended, according to the MSMS By-laws, and therefore are not in good standing and are not eligible for Military Membership in the State Society and for the remission of dues during the period of their service in the armed forces. If any of your members fall into this classification, contact them to pay their dues for the current year so that they may be accorded Military Membership and, upon their return home, one year's membership without the payment of MSMS dues.

* * *

*The Michigan Chapter* of the American College of Chest Physicians will hold its autumn meeting in the Pantlind Hotel, Room 222, on the afternoon and evening of September 22, 1942.

The following program has been arranged:

*Afternoon Session—2:30 P.M.*

Norman Clarke, M.D., Presiding

1. "End Results in 100 Pneumothorax Cases"—Paul Chapman, M.D., Detroit
2. "Bronchoscopic Examination as an Aid in the Early Diagnosis of Cancer of the Lung"—John R. Birch, M.D., Detroit
3. "Diagnostic Importance of Pleural Effusions in Cancer of the Lung"—William P. Chester, M.D., Detroit
4. "Cardiopulmonary Disease"—Leslie F. Colvin, M.D., Detroit.

*Dinner—6:30 P.M.*

William A. Hudson, M.D., Master of Ceremonies

1. Physiology of Respiration"—Kenneth A. Wood, M.D., Detroit
2. "General Discussion of Thoracic Trauma"—Jerome R. Head, M.D., Chicago, Illinois.

A very cordial invitation is extended to all members of the MSMS to attend and enter into the discussion.

Officers of the Michigan Chapter of the American College of Chest Physicians are Willard B. Howes, M.D., Detroit, president; S. M. Gelenger, M.D., Flint, vice president; and Donald MacInnis, M.D., Pontiac, secretary-treasurer.

* * *

*Military Service and its effect on policies of group hospitalization.*—Many subscribers have requested information as to what effect military service will have on their hospital service certificates. Michigan Hospital Service, through its Director, John R. Mannix, announces that those individuals called to service will be able to continue the coverage for their dependents while in service. Says Mr. Mannix:

"Our policy will be as follows:

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he may continue the service for his wife during his period of military service at the individual person's contract rate. The contract may be changed back to a man and wife certificate when he returns from service.

"3. If the subscriber holds a family contract and has one child, he may continue the service for his wife and child at the regular rate for two persons (same as the man and wife rate). The contract may be changed back to a family contract at the time he leaves the service.

"4. If the subscriber holds a family contract and has two or more children, the contract may be continued at the regular family rate.

"In all cases the subscriber may secure hospital protection for himself by applying to our office within thirty days after he returns from military service."

* * *

*Afflicted-Crippled Children.*—(a) Prompt and correct billing: while the penalty imposed on hospitals for delayed reporting of admittances of Afflicted-Crippled Children does not affect billing for doctors' services, *it is the physician's responsibility to see that the hospital sends a correct bill for his services to the Commission.* The physician should submit his statement on his own billhead to the hospital before the end of the calendar month in which the service took place. *Billings delayed over 60 days after the patient leaves the hospital will not be paid.*

(b) In Afflicted-Crippled Children cases, where physicians do not accept the surgical or medical fee of the Commission, they must make previous arrangements with the patient IN WRITING, and a notification of the fact that such arrangements have been made must be sent to the Commission so that both patient and the Commission are informed that the Michigan Crippled Children Commission medical fees will not be accepted by the doctor.

(c) Bills for dangerous contagious diseases are payable by the county. If they are sent to the Commission they will be charged back to the county.

(d) The Commission will accept billing for services of only one physician on each case, with the following exceptions:

(1) when consultation is necessary;

(2) when the services of a surgeon who is not the attending physician are required, the attending physician will be allowed fees for bedside care in accordance with schedule of fees prior to operative date, and the surgeon will be allowed the surgical fee, to include after-care for a 30-day period.

$200 shall be the maximum paid for medical and surgical fees for any one patient in any one year, under Act 158 of the P.A. of 1937, and under Act 283 of the P.A. of 1939.

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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

THE CLARKS. An American Phenomenon. By William D. Mangam. With an Introduction by Edward Alsworth Ross, Professor of Sociology, University of Wisconsin. New York: Silver Bow Press, 1941. Price: $2.50.

This is a biographical sketch of the Clark family and their influence on the development of Montana. Its personal appeal and intimate characters make it absorbing reading to the student of Americana. It is well worth reading.

* * *

DIABETES MELLITUS. Methods of Dietetic Management and the Use of Preparations of Insulin. From the Lilly Research Laboratories. Second Edition. Published for the Medical Profession by Eli Lilly and Company, Indianapolis, Indiana, U. S. A.

Eli Lilly and Company has prepared a condensed compilation of practical information on the treatment of diabetes, emphasizing the methods for using protamine zinc insulin. It provides for the busy practitioner a digest of information on this disease. Sample diet lists and tables enhance the value of this welcome addition to the general practitioner's library.

* * *

SEROLOGY IN SYPHILIS CONTROL. Principles of Sensitivity and Specificity. With an Appendix for Health Officers and Industrial Physicians. By Reuben L. Kahn, M.S., D.Sc., Director of Clinical Laboratories and of Serologic Consultation Service, University of Michigan Hospital; Assistant Professor of Bacteriology and Serology, University of Michigan Medical School; Major, Sanitary Corps Reserve; U. S. Army; Special Consultant, U. S. Public Health Service. Baltimore: The Williams and Wilkins Company, 1942. Price: $3.00.

The perfector of the Kahn test for syphilis, a professor at the University of Michigan, discusses here the considerations which would enable the physician to best utilize the tests in the diagnosis and treatment of syphilis and control of the disease. Two appendices, one for public health officers and one for industrial physicians, make the volume of extreme interest to those specialists. The typography is good and the material is complete. It is especially recommended to the syphilologist, the health officer, and the industrial physician.

* * *

CARCINOMA AND OTHER MALIGNANT LESIONS OF THE STOMACH. By Waltman Walters, B.S., M.D., M.S. in Surgery, D.Sc., F.A.C.S., Surgeon, Mayo Clinic; Howard K. Gray, B.S., M.D., M.S. in Surgery, F.A.C.S., Surgeon, Mayo Clinic; James T. Priestley, B.A., M.D., M.S. in Experimental Surgery, Ph.D., in Surgery, F.A.C.S., Surgeon, Mayo Clinic; and Associates in the Mayo Clinic and Mayo Foundation, Rochester, Minn. Philadelphia and London: W. B. Saunders Company, 1942. Price: $8.50.

The authors together with many associates from the Mayo Clinic have accumulated and evaluated their experience in following their concentration of efforts in this field of surgery. This analysis of information recorded in ten thousand cases tends to stimulate the interest in the early diagnosis of this malignant condition. It is unusually complete. It is recommended particularly to every surgeon, and is of distinct interest to internists and roentgenologists.

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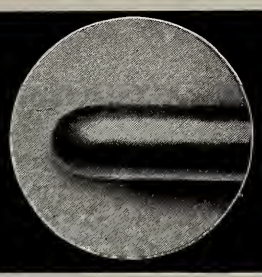

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MANUAL OF STANDARD PRACTICE OF PLASTIC AND MAXILLOFACIAL SURGERY. Prepared and Edited by the Subcommittee on Plastic and Maxillofacial Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, and Representatives of the Medical Department, U. S. Army. Robert H. Ivy, Chairman; John Staige David, P. C. Lowery, Joseph D. Eby, Ferris Smith, Brig. Gen. Leigh C. Fairbank, Medical Department, U. S. Army, Lt. Col. Roy A. Stout, Dental Corps, U. S. Army. With Contributions by John Scudder, Frederick P. Haugen. Philadelphia and London: W. B. Saunders Company, 1942. Price: $5.00.

This is the first of six volumes dealing with subjects which are frequently important to the care of the armed forces. "Expansion of the medical establishment of the Army is entirely dependent on entry into the service of individuals from civil life. * * * The military situation imposes certain restricting factors which render impracticable some procedures that would be considered ideal in civil life. The goal of furnishing the best possible treatment to all individuals is the same in the Army as in civil life, but the means to attain that goal may differ materially." The illustrations clarify the technical procedures. The arrangement of material is splendid and the typography is excellent. It is recommended for all surgeons in the armed forces.

* * *

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION. Edited by Richard M. Hewitt, B.A., M.A., M.D.,; A. B. Nevling, M.D.; John R. Miner, B.A., Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXIII—1941. Philadelphia and London: W. B. Saunders Company, 1942. Price: $11.50.

This is the 1941 edition of material which is of particular interest to the general practitioner and the diagnostician and the general surgeon. It is assembled from writings of the staff of the Clinic and Foundation. There are sixty-four complete reprints, eighty-six abridged papers and sixty-seven abstracts. The general quality of material cannot be questioned and it is voluminous. "Papers for the section on 'Aviation Medicine' were chosen from any source available in the institutions represented and are printed in full. The present widespread interest in aviation and its problems and the need for information on this subject prompted the inclusion of this section in this volume." The volume is recommended as an encyclopedic review of the literature of 1941. The typography is excellent.

* * *

PATHOLOGY OF THE ORAL CAVITY. By Lester Richard Cahn, D.D.S., Associate Professor of Dentistry (Oral Pathology), Columbia University; Fellow of the American Association for the Advancement of Science; Fellow of the New York Academy of Dentistry; Associate Fellow of the New York Academy of Medicine. A William Wood Book. Baltimore: The Williams and Wilkins Company, 1941. Price: $5.50.

A pathology which concentrates on clinical application is of interest to most doctors of medicine and doctors of dentistry. No attempt to deal with the rarer conditions is made except where they are still common enough to be always suspected. It is authoritative, excellently written, and splendidly illustrated. The typography is excellent. It is recommended to all physicians who are interested in diseases of the mouth.

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FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting September 21st. Informal Course available every week.

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OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting October 19th. Informal courses every week.

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HEALTH EDUCATION OF THE PUBLIC. By W. W. Bauer, B.S., M.D., Director, Bureau of Health Education, American Medical Association; Associate Editor of Hygeia, The Health Magazine; and Thomas G. Hull, Ph.D., Director, Scientific Exhibit, American Medical Association. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1942. Price: $2.75.

This is the second edition of the volume originally published in 1937. Its use should enable the physician to impart to the layman specialized knowledge in a manner which the layman may easily understand and therefore cooperate with his advisor. It includes every means of imparting information to the public from exhibits to personal correspondence. Every physician should use this volume as a guide to more efficient instruction of his patients.

* * *

BLOOD GROUPING TECHNIC. A Manual for Clinicians, Serologists, Anthropologists, and Students of Legal and Military Medicine. By Fritz Schiff, M.D., Late Chief of the Department of Bacteriology, Beth Israel Hospital, New York, N. Y.; William C. Boyd, Ph.D., Associate Professor of Biochemistry, Boston University School of Medicine; Associate Member, Evans Memorial, Massachusetts Memorial Hospitals, Boston; with a foreword by Karl Landsteiner, Rockefeller Institute for Medical Research. New York: Interscience Publishers, Inc., 1942. Price: $5.00.

This posthumous work of Dr. Schiff in collaboration with W. C. Boyd, gives clear and concise directions for carrying out blood grouping tests in all its aspects. The theory as well as the practical aspects of blood grouping are presented. The material is quite well organized and the typography is good. The material is authoritative and it is recommended particularly to the pathologist and other interested groups of physicians.

* * *

THE KENNY METHOD OF TREATMENT FOR INFANTILE PARALYSIS. By Wallace H. Cole, M.D., Professor of Surgery and Director of Division of Orthopedic Surgery, University of Minnesota; John F. Pohl, M.D., Clinical Instructor of Orthopedic Surgery, University of Minnesota, Director of Infantile Paralysis Clinic, Minneapolis General Hospital; Miland E. Knapp, M.D., Clinical Assistant Professor of Radiology and Physical Therapy and Director of Training Courses in Kenny Technique, University of Minnesota. Prepared under the auspices of its Committee on Education and distributed by The National Foundation for Infantile Paralysis, Inc.

The pamphlet is an exposition of the Kenny Method prepared for distribution to the physicians of the country. While only time may prove the complete field of usefulness for the Kenny Method the excellent results achieved in many cases by this method warrant this book's general distribution and study.

* * *

THE MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS. By John Albert Key, B.S., M.D., St. Louis, Mo., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and Jewish Hospitals; and H. Earle Conwell, M.D., F.A.C.S., Birmingham, Ala., Orthopedic Surgeon to the Tennessee Coal, Iron and Railroad Company and the Orthodepdic and Traumatic Services of the Employes' Hospital and to the American Cast Iron Pipe Company; Chairman of the Committee on Fractures and Traumatic Surgery of the American Academy of Orthopedic Surgeons, Member of the Fracture Committee of the American College of Surgeons. Associate Surgical Director of the Crippled Children's Hospital, Attending Orthopedic Surgeon to St. Vincent's Hospital, South Highlands Hospital, Hillman Hospital, Children's Hospital, Baptist Hospitals and Jefferson Hospital, Birmingham, Ala. Third Edition. St. Louis: The C. V. Mosby Company, 1942. Price: $12.50.

This is the third edition of this standard text first published in 1934. Recent advances in the treatment of fractures of the spine, humerous,

hip and foot as well as the newer handling of compound fractures have made it advisable to revise this book. Many other provisions have been made to bring up to date this exceptional volume. The practical aspect of this book adds to its outstanding value. The typography is excellent and the illustrations are particularly well selected and excellently reproduced. It is recommended to every general practitioner.

* * *

THEY DO MEET. Cross-Trails of American Physician and Chinese People. By Bertha L. Selmon, M.D. New York. Froben Press, 1942. Price: $2.50.

Two intrepid and sincere medical missionaries faced great hardship in pioneering modern medical care in the interior of China in 1903. Dr. Bertha Selmon tells about the experiences of herself and husband during the many years spent in this noble work. Unfortunately it is necessary for the reader to pick out morsels of thrilling soul-stirring experiences from a maze of unnecessary minutiæ. One is well repaid for this labor by the exceptional passages of pure drama.

* * *

A PAMPHLET OF INSTRUCTIONS FOR THE DIABETIC PATIENT. By Wm. M. LeFevre, A.B., M.D., F.A.C.P., Chief Department of Medicine Mercy Hospital, Consultant in Medicine Hackley Hospital, Consultant in Medicine, Muskegon County Tuberculosis Sanitarium, Muskegon, Michigan. Second Edition. Muskegon, Michigan: Dana Printing Company, 1942. Price: $ .50.

The author presents, in a pamphlet, information for the diabetic patient in the same manner in which the patient has been instructed in his office. The material is presented in simple concise form and is suitable for distribution to the diabetic patient.

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During air raids on London various sedatives were tried on anxious patients, not only therapeutically, but prophylactically to reduce apprehension and induce a state of relative mental calm. In order to determine the degree of mental impairment and the capacity to react reasonably to an emergency, Slater et al. (Lancet, 1:676, June 6, 1942) measured the effect of "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) by means of standard intelligence tests which were performed on nearly 400 cases. It was concluded that doses of 3 grains or less did not impair the functioning of the patients' intelligence to any important extent. The drug must be prescribed, nevertheless, with individual susceptibilities and requirements in mind. Doses of 1 grain to 3 grains were most generally useful.

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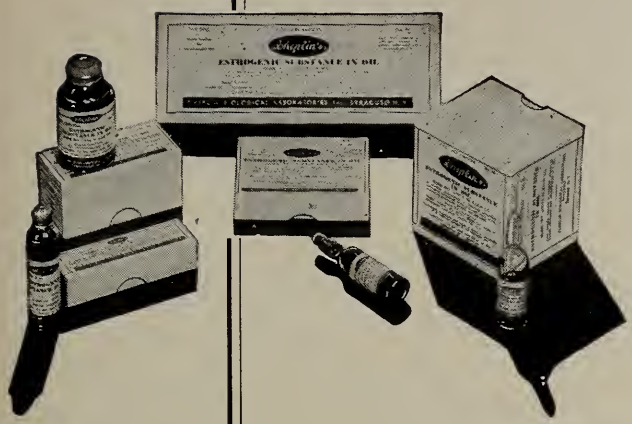

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**SYRACUSE, NEW YORK**

# ✶ HALF A CENTURY AGO ✶

## ONE YEAR'S WORK IN LAPAROTOMY

J. H. CARSTENS, M.D., Detroit, Michigan

A year ago, I had the pleasure of giving you my results of four months' work in laparotomy, and it seems proper that I should finish the work today, and let you know what I did in that line for the balance of the year 1891.

It seems to be a fad to report a year's work in laparotomy, and this has been criticized; but I can see no valid objection to such reports, as the very growth of laparotomy is due to a careful record and report of cases, and these show a steady improvement in technique and a most wonderful diminution in the death rate. The result is, more operations. Cases formerly allowed to die without an effort (except opium) are now operated on, and ninety per cent, more or less, are restored to health. When the mortality was fifty or even more per cent, yes, when only twenty to thirty per cent, the general practitioner hesitated to consent to any operative interference; but now, when we can show less than ten per cent, yes, in some classes of cases, only two or three per cent, the general practitioner becomes our leading ally, and educates the public to submit to operations. The public, hearing so much about bold successful operations, and seeing the results of brilliant surgery in their friends and relatives, has brought about a different idea in the minds of people. It is seldom that anyone refuses to submit to an operation today; yes, people even request an operation, when the physician thinks that the symptoms hardly warrant one.

The work of the innovators, that is, those who are the pioneers in modern laparotomy, has been beset with difficulties. They have been assailed by the fossils in the profession, as the castrators of females, the unsexers of women, as bold, bad men, etc. But by constant work, careful observation, honest reports of all results, good, bad, and indifferent; they have found the cause of death in many cases, and how to prevent it; they have adopted and perfected modern antiseptic surgery to the highest state, and thus have gradually improved and simplified the different operations.

This includes all cases, except one of puerperal fever, which hardly belongs in this list.

In short, to recapitulate:

| | No. Cases | Recovered |
|---|---|---|
| Appendicitis | 1 | 1 |
| Herniotomies | 2 | 2 |
| Abdominal hysterectomies | 2 | 2 |
| Vaginal hysterectomies | 3 | 3 |
| Extra uterine pregnancies | 2 | 2 |
| Pus tubes | 16 | 15 |
| Ovaritis and salpingitis | 15 | 15 |
| Ovarian tumors | 4 | 3 |
| Miscellaneous | 8 | 7 |
| Total | 53 | 49 |

This is a fraction over 7 per cent, including the most unpromising cases. As I said last year, these operations were not made for a record, but every case was operated upon which seemed to offer hope, and every patient was given the benefit of an operation, if it was indicated. Some of the most hopeless cases recovered and now enjoy good health.

| No. | Date of Operation | | Age | No. Children | Operation | Result | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | APPENDICITIS | | |
| 1. | Dec. 22 | Miss G | 15 | None | Rem. Vermif. App. | Recovery | |
| | | | | | HERNIOTOMY | | |
| 2. | Feb. 4 | Mrs. H | 39 | None | Radical cure | Recovery | Strangulated 48 hours |
| 3. | July 11 | Mrs. H. | 40 | None | Hernia | Recovery | Strangulated 3 days |
| | | | | | ABDOMINAL HYSTERECTOMY | | |
| 4. | Oct. 16 | Mrs. R | 63 | 4 | Myofibroma | Recovery | Died 3 mos. later, dropsy |
| 5. | Oct. 31 | Mrs. G. | 33 | 5 | Myofibroma | Recovery | |

*(Continued on page 822)*

# *The Navy* OF TOMORROW IS IN THE *Making* TODAY

WHEN sailormen come bigger, huskier, more battle-worthy, one likely reason for the improvement will be the kind of rations with which they started life.

Babies fed on Baker's Modified Milk receive seven important *extra food values*—dietary essentials that doctors and their aides in the nutrition field today credit with building better men.

Baker's is rich in essential protein (40% more than breast milk)—plus complementary gelatin, an adjusted fat, two added sugars, extra vitamins and iron . . . all in highly tolerable form, for infants from birth through bottle feeding.

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West Coast Office: 1250 Sansome Street, San Francisco

## ONE YEAR'S WORK IN LAPAROTOMY

*(Continued from page 820)*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | VAGINAL HYSTERECTOMY | | |
| 6. | Feb. 27 | Mrs. L. | 58 | 4 | Cancer | Recovery | No return so far |
| 7. | May 30 | Mrs. M | 36 | 5 | Cancer | Died | Died in 24 hours, shock |
| 8. | May 21 | Mrs. D. | 42 | | Prolapse | Recovery | Cured insanity and epileptic fits |
| | | | | | EXTRA-UTERINE PREGNANCY | | |
| 9. | Feb. 6 | Mrs. P. | 30 | 2 | Remnants of tubal | Recovery | |
| 10. | June 15 | Mrs. C. | 36 | None | Remnants and placenta | Recovery | |
| | | | | | PYOSALPINGITIS | | |
| 11. | Jan. 15 | Mrs. M. | 25 | None | Gonorr. pus tube | Recovery | |
| 12. | Feb. 7 | Mrs. R | 40 | 5 | Pus tube | Recovery | Also sarcoma |
| 13. | Feb. 10 | Mrs. W. | 21 | None | Pus tube | Recovery | Fistula still |
| 14. | Feb. 12 | Mrs. L. | 25 | None | Pus tube | Recovery | |
| 15. | April 2 | Mrs. V. | 30 | 2 | Pus tube | Died | In last year's report |
| 16. | April 19 | Mrs. D | 27 | 1 | Pus tube | Recovery | |
| 17. | July 20 | Mrs. C. | 28 | Sterile | Pus tube | Recovery | |
| 18. | Aug. 12 | Mrs. S. | 35 | 3 | Pus tube | Recovery | Tubercular |
| 19. | Sept. 15 | Mrs. D | 30 | None | Pus tube | Recovery | |
| 20. | Sept. 14 | Mrs. G. | 21 | 1 | Tube | Recovery | Only right tube removed |
| 21. | Sept. 26 | Mrs. R. | 33 | 4 | Pus tube | Recovery | |
| 22. | Sept. 23 | Mrs. A. | 34 | 5 | Pus tubes | Recovery | |
| 23. | Sept. 28 | Mrs. P. | 33 | 4 | Pus tubes | Recovery | Also cyst br. lig. |
| 24. | Oct. 13 | Mrs. U. | 22 | | Pus tubes | Recovery | |
| 25. | Oct. 28 | Mrs. M. | 30 | 2 | Pus tubes | Recovery | |
| 26. | Oct. 31 | Mrs. E. | 29 | None | Pus tubes | Recovery | |
| | | | | | OVARITIS AND SALPINGITIS | | |
| 27. | Mar. 9 | Mrs. H. | 28 | 2 | Ovaritis and salp. | Recovery | |
| 28. | April 18 | Mrs. P. | 40 | 5 | Ovaritis and salp. | Recovery | |
| 29. | May 21 | Mrs. A. | 36 | 4 | Ovaritis and salp. | Recovery | |
| 30. | Sept. 10 | Mrs. B. | 45 | 1 | Ovaritis and salp. | Recovery | |
| 31. | Sept. 12 | Mrs. W | 26 | 2 | Ovaritis and salp. | Recovery | |
| 32. | Oct. 20 | Mrs. C. | 28 | 2 | Ovaritis and salp. | Recovery | |
| 33. | Nov. 2 | Mrs. G. | 30 | 2 | Ovaritis and salp. | Recovery | |
| 34. | Nov. 4 | Mrs. B. | 22 | None | Ovaritis and salp. | Recovery | |
| 35. | June 30 | Mrs. H. | 27 | None | Ovaritis and salp. | Recovery | Only 1 removed |
| 36. | July 3 | Miss C. | 28 | None | Ovaritis and salp. | Recovery | |
| 37. | Oct. 22 | Miss M | 23 | None | Ovaritis and salp. | Recovery | |
| 38. | Oct. 22 | Miss B. | 27 | None | Ovaritis and salp. | Recovery | |
| 39. | Nov. 25 | Miss E. | 45 | None | Ovaritis and salp. | Recovery | |
| 40. | Sept. 24 | Mrs. E. | 23 | None | One ovary | Recovery | |
| 41. | April 2 | Mrs. A. | 30 | 1 | One ovary | Recovery | |
| | | | | | OVARIAN TUMORS | | |
| 42. | Jan. 8 | Mrs. K. | | None | One ovary | Recovery | |
| 43. | June 2 | Mrs. M. | 30 | Sterile | One ovary | Recovery | |
| 44. | Oct. 7 | Mrs. S. | 65 | 2 | One ovary | Died | Shock 24 hours, extensive adhesions |
| 45. | Dec. 5 | Mrs. F. | 54 | 5 | One ovary | Recovery | |
| | | | | | MISCELLANEOUS | | |
| 46. | Mar. 19 | Mrs. F. | 35 | 1 | Fistula fol. ovary | Recovery | Cured |
| 47. | Feb. 4 | Miss C. | 33 | None | Exploratory | Recovery | |
| 48. | Mar. 31 | Miss E. | 29 | None | Adenoma | Recovery | |
| 49. | April10 | Mrs. W. | 46 | 3 | Sarcoma | Died | Shock, 36 hours |
| 50. | Nov. 25 | Miss B. | 36 | None | Ventro-fixation | Recovery | |
| 51. | Nov. 3 | Mrs. N. | 46 | 5 | Dermoid | Recovery | |
| 52. | Dec. 10 | Mrs. B. | 46 | 4 | Papilloma | Recovery | Not removed; since died |
| 53. | Dec. 10 | Mrs. C. | 46 | 5 | Papilloma | Recovery | Not removed; since died |

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### A NEW APPROACH TO THE TREATMENT OF SNORING

On the basis of the theory that the true functional snoring is caused by the vibration of the soft palate, uvula and posterior pillars, and that the sound produced is related to the natural periodic vibrations of the tissue involved, it is suggested that the "fluttering" factors be modified by producing a controlled fibrosis in the vibrating soft tissues through the injection of a sclerosing solution, such as sylnasol (a 5% solution of the sodium salts of certain of the fatty acids of the oil extracted from a seed of the psyllum group).—Jerome F. Straus, M.D., Arch. of Otolaryng., Sept., 1942.

Will smallpox continue to decline in 1942?

# SMALLPOX VACCINE

## *Lederle*

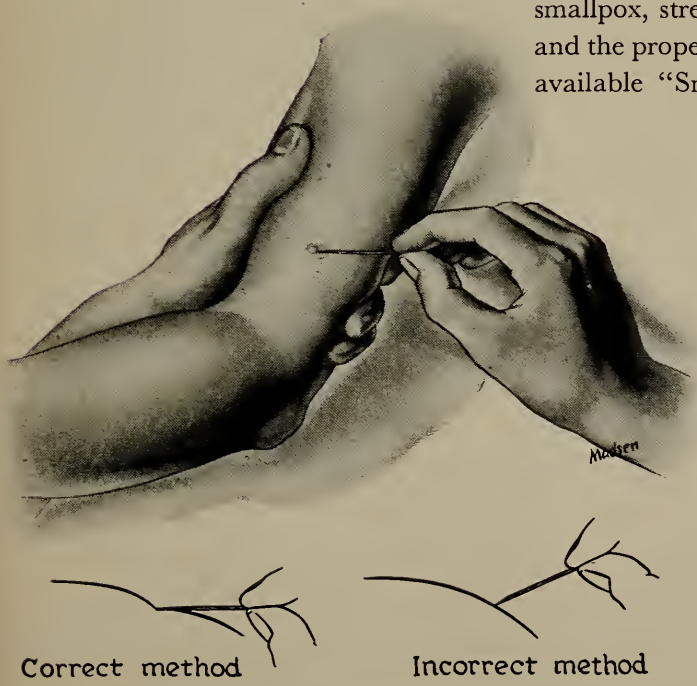
THE new "low" in smallpox incidence reached in this country in 1941 compares most favorably with the perennially high incidence reported in previous years:[1]

| | 1941 | Median 1936-40 |
|---|---|---|
| SMALLPOX | 1,368 | 9,574 |

However, we are still far too tolerant of this dangerous disease.

To avert the possible increase in the incidence of infectious diseases, which history has shown is fostered during war time, our government recently made the commendable move of advising the immunization of all children over 6 months of age against smallpox. The success of this program, however, depends on the cooperation of every practitioner, public health official and local governing body alike.

TOOMEY,[2] in a recent analysis of active immunity in smallpox, stressed the integrity of the immunizing agent and the proper technique of vaccination. Lederle now has available "Smallpox Vaccine *Lederle*" which has been further improved by the addition of Brilliant Green (reducing the bacterial count of the virus). The "take" with this product is quite satisfactory and its viability has not been diminished as compared with glycerinated vaccine cured without the dye.




[1]Pub. Health Rep. 57:23,24 (Jan. 2) 1942.
[2]TOOMEY, J. A.: J. A. M. A. 119:18 (May 2) 1942.

PACKAGES
"Smallpox Vaccine *Lederle*" (U. S. P.)
1, 5 and 10 vaccinations
"Smallpox Vaccine *Lederle*" (Preserved with Brilliant Green)
1, 5 and 10 vaccinations

***Supplied in glass capillary tubes, with sterile steel needle for each vaccination.***

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## REPORT OF MEDICAL RECRUITING BOARD

The following communication regarding change in policy regarding appointment in the Medical Corps, AUS, was received August 29, 1942, by the Medical Recruiting Board, and takes immediate effect:

"War Department, Office of The Surgeon General, Washington, D. C.
August 22, 1942.

"The current military program provides for a definite number of position vacancies in the different grades. The number of such positions must necessarily determine the promotion of officers already on duty, and in addition, *the appointment of new officers from civilian life.* Such appointments are limited to qualified physicians required to fill the position vacancies for which no equally well qualified medical officers are available. Such positions calling for an increase in grade should be filled by promotion of those already in the service, in so far as possible, and *not by new appointments.*

"If this policy is not followed, it would definitely penalize a large number of well qualified Lieutenants and Captains already on duty by blocking their promotions which have been earned by hard work. In view of these facts, it has been deemed necessary to raise the standards of training and experience for appointment in grades above that of First Lieutenant.

"With this in view, The Surgeon General has announced the following policy which will govern action to be taken on all applications hereafter:

"All appointments will be recommended in the grade of First Lieutenant with the following exceptions:

"Captain. 1. *Eligible* applicants between the ages of 37 and 45, will be considered for appointment in the grade of Captain by reason of their age and general unclassified medical training and experience.

"2. Below the age of 37 and *above* the age of 32, *consideration* for appointment in the grade of Captain will be given to applicants who meet *all* of the following minimum requirements:

(a) Graduation from an approved medical school.
(b) Internship of not less than one year, preferably of the rotating type.
(c) Special training consisting of 3 years' residency in a recognized specialty.
(d) An additional period of not less than 2 years of study and/or practice limited to the specialty.

"3. Eligible applicants who previously held commissions in the grade of Captain in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) *may be considered* for appointment in that grade provided they have not passed the age of 45 years.

"Major. 1. Eligible applicants between the ages of 37 and 55 *may be considered* for appointment under the following conditions:

(a) Graduation from an approved school.
(b) Internship of not less than one year, preferably of the rotating type.
(c) Special training consisting of 3 years' residency in a recognized specialty.
(d) An additional period of not less than 7 years of study and/or practice limited to the specialty.
(e) The existence of appropriate position vacancies.
(f) Additional training of a special nature of value to the military service, in lieu of the above.

"2. Applicants previously commissioned as Majors in the Medical Corps (regular Army, National Guard of the United States, or Officers Reserve Corps) whose training and experience qualify them for appropriate assignments may be *considered* for appointment in the grade of Major provided they have not passed the age of 55.

"Much misunderstanding has arisen concerning recognition by Specialty Boards and membership in Specialty groups. It will be noted that mention is not made of these in preceding paragraphs. This is due to the variation in requirements of the various boards and organizations. Membership and recognition are definite factors in determining the professional background of the individual, but *are not* the deciding factor as so many physicians have been led to believe.

"The action of the Grading Board established by the Surgeon General in his office, is final in tendering initial appointments. Proper consideration must be given to such factors as age, position vacancies, the functions of command and original assignments. All questionable and essential grades are decided by this Board. Due to the lack of time, no reconsideration can be given.

*(Continued on Page 826)*

# INTERESTED IN CIGARETTE ADVERTISING?

Words, claims, clever advertising do sell plenty of products. But obviously they do not change the product itself.

That PHILIP MORRIS are less irritating to the nose and throat is not a claim. It is the result of a difference in manufacture, *proved** advantageous over and over again.

But why not make your *own* tests? Why not *try* PHILIP MORRIS on your patients who smoke, and *confirm* the effects for yourself.

# PHILIP MORRIS

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119 FIFTH AVENUE, N. Y.

* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
*Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

---

**TO PHYSICIANS WHO SMOKE A PIPE:** We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

*(Continued from Page 824)*

"There are in the age group 24-45, more than a sufficient number of eligible, qualified physicians to meet the Medical Department's requirements. It is upon this age group that the Congress has imposed a definite obligation of military service through the medium of the Selective Service Act. The physicians in this group are the ones needed *now* for active duty. The requirements are immediate and imperative. Applicants beyond 45 years may be considered for appointment only if they possess special qualifications for assignment to positions appropriate to the grade of Major."

The above quoted letter from the Office of The Surgeon General was forwarded to the Medical Officers Recruiting Board of Michigan by the Headquarters, Sixth Service Command, Chicago, Illinois, with definite orders that "applications for commissions in grades higher than that of Captain, Medical Corps, AUS, will be forwarded to the Surgeon General for consideration only when it is clearly indicated that the applicant fulfills all the training and experience requirements for the higher grade as outlined in the letter referred to from the Office of the Surgeon General."

In view of the foregoing, it will be useless for any physician to apply for a commission above the grade of First Lieutenant, unless he clearly has the qualifications set forth in the above quoted letter from the Office of The Surgeon General. This Recruiting Board is definitely under orders not to forward any application to the Surgeon General of any applicant who does not meet with the above requirements, nor will it do any individual any good to send his application direct to the Surgeon General as such applications are referred back to this Board for action.

JOHN G. SLEVIN
*Lieut. Colonel, M.C.*
*Surgeon of the Board.*

August 31, 1942

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## MULTIPLE MESSAGE

The Office of Civilian Defense advises its regional medical officers that Lieutenant General Brehon B. Somervell, Chief of Services of Supply, has ordered all plants owned by the War Department as well as civilian plants engaged in production of war material, to plan with local chiefs of the Civilian Defense Emergency Medical Service for the use of available emergency medical facilities.

General Somervell also ordered that plant protection inspectors make sure that plans have been formulated for this coöperation.

The Navy also is sending out, with its official approval, OCD recommendations regarding coordinated plans by industrial plants to use the protection facilities of the OCD emergency medical service in time of emergency.

Industrial plants are expected to provide medical services and first-aid equipment within the plant, but in the event of enemy action, plant physicians, nurses and first-aid detachments may be unable to care for all the seriously injured.

It is considered essential, therefore, that protection of personnel in the plant be coördinated with the local emergency medical service, the OCD advised, so that plant facilities may be supplemented by those of the OCD organization in case of need.

Assistance which may be extended by the Emergency Medical Service to industrial plants includes: (1) Services of ambulances and emergency medical field units when needed; (2) Available beds at one or more hospitals to which the severe casualties may be transported; (3) Establishment of a casualty station within a short distance of the plant.

Local chiefs of emergency medical service have been instructed to advise employers concerning adequate emergency medical protection, including location of casualty stations and medical supplies within reach of the plant and installation of direct telephone lines between important locations and the civilian defense control center in order that emergency medical service may be secured and severe casualties evacuated to hospitals with a minimum of delay.

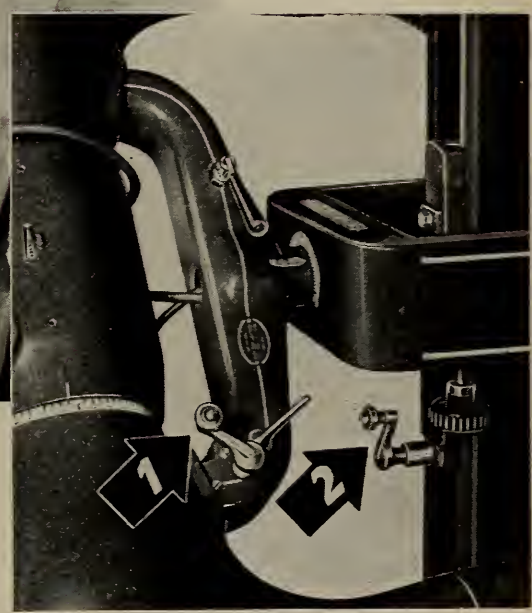
The emergency medical service in each community operates under a chief who is designated by the local defense council and is responsible to the local commander of the Citizens Defense Corps. It is an integral part of the entire defense setup and operates under orders of the commander through the local control center.

The basic operating unit of the Emergency Medical Service is a "field team" composed of a doctor, a nurse, and an orderly or nurses' aide. Each team is equipped with portable medical

*(Continued on Page 828)*

# FINGER TIP CONTROL!

## FAST, EASY, ACCURATE FOR EVERY THERAPY POSITION




Picker-Waite Shockproof X-Ray Therapy Equipment is by far the most easily manipulated x-ray apparatus available to the profession.

Six motions can be imparted to the treatment cone instead of the usual three or four, thus providing the maximum flexibility and ease of operation for all treatment positions and at the same time comfort to the patient.

Arrow No. 1 indicates the control crank and lock for the manipulation of the tube head in any treatment position. Arrow No. 2 indicates the crank for controlling vertical travel of the tube head assembly.

**PICKER X-RAY PX CORPORATION**
300 FOURTH AVENUE NEW YORK, NEW YORK
WAITE MANUFACTURING DIVISION, CLEVELAND, OHIO

*(Continued from Page 826)*

equipment adequate for operation of one temporary first-aid post. Either two or four such teams make up a "squad" and two or more squads make up an emergency medical field unit.

In case of emergency, a squad will be dispatched from a hospital to a casualty station on orders from the control center. Casualty stations are permanent installations located at strategic points throughout the local defense area. They are stocked with reserve medical supplies and equipped with cots, blankets, stretchers and heating facilities.

In addition to the facilities of the emergency medical service itself, coördination of the industrial plants medical program with that of the citizens defense corps assures the planned assistance of other civilian defense units which work with the medical service. These include rescue squads, stretcher teams, decontamination squads and the emergency food and housing unit.

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## BLOOD AND PLASMA FOR CIVILIAN CASUALTIES

Eighty-eight hospitals in vulnerable areas had received grants up to August 1 to aid them in the establishment of blood and plasma banks under the program of the Medical Division of the Office of Civilian Defense and the U. S. Public Health Service to build up reserves of plasma for treatment of civilian casualties in the event of enemy attack.

These funds were used in some cases to provide additional equipment for existing blood and plasma banks in order to enable them to meet the requirements of the Office of Civilian Defense program, to supplement local funds for the establishment of new banks and to provide technical assistance during the time the bank is building up the Civilian Defense requirements for plasma reserves.

The original allocation of funds permitted assistance only to states within 300 miles of each seacoast. As of July 1, however, when new funds were appropriated, this geographical limitation was removed to permit a limited number of hospitals in inland target areas to participate. Since that time grants have been made to hospitals in Cleveland, Chicago and other communities along the Great Lakes.

Revised regulations issued July 1 contained certain new conditions for obtaining the grants. Because it is desired to avoid any possible interference with the Red Cross program for procurement of blood for the Army, the Navy, and the Office of Civilian Defense, the regulations specify that a hospital within 75 miles of a Red Cross bleeding center shall not conduct any competitive campaigns for donors. In such hospitals, six months is allowed for building up the civilian defense plasma reserve instead of three months, which is the general requirement. This reserve must amount to one unit of plasma per bed.

The plasma may be used for the current needs of the hospitals in the treatment of its regular patients, provided that the plasma reserve shall not be allowed to fall below the stated minimum. If the reserve is depleted because of large numbers of casualties, however, a reasonable time is allowed for replenishment of the bank to the required amount, and additional financial aid will be provided. This will also be done for approved hospitals which have not received grants but furnish other hospitals with plasma prepared locally for the treatment of casualties resulting from enemy action.

---

## COLONEL SEELEY TO MILITARY DUTY

The Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, has formally expressed its appreciation of the services rendered by Colonel Sam F. Seeley, who has been transferred to military duty. Following is the text of the resolution adopted:

"The transfer of Lieutenant Colonel Sam F. Seeley from his connection with the Procurement and Assignment Service to active military duty causes a great loss. Colonel Seeley who has acted as Executive Officer since the beginning of this Service has been transferred to military duty, which is in keeping with the policy recently adopted by the War Department. His training and experience with the Medical Corps of the Army in his professional capacity amply justifies such a step.

"The Directing Board of the Procurement and Assignment Service wishes to take this opportunity of expressing to the Surgeon General of the United States Army its very deep appreciation for the valuable service which Colonel Seeley has

*(Continued on Page 830)*

# Liver Extract Squibb

## • LOW IN TOTAL SOLIDS
## • EXCEPTIONALLY CLEAR

In pernicious anemia, Liver Extract in adequate dosage will produce a prompt reticulocyte response and hematologic recovery. Once dosage requirements have been established and the blood picture returned to normal, administration may be reduced to two- or three-week intervals.

Concentrated Liver Extract Squibb (15 units injectable per cc.) offers the advantages of being low in total solids, and exceptionally clear and light colored. Its high concentration affords low dosage volume and may save the patient considerable discomfort. Furthermore, cost of maintenance is appreciably less than with effective doses of liver principle given orally. It is available in 3x1-cc. vial packages and in 5-cc. and 10-cc. vials.

Liver Extract Squibb is a sterile, aqueous solution, obtained from edible liver. Both the regular and concentrated potencies are standardized on the basis of the hematopoietic response in pernicious anemia as defined by the U.S.P. Anti-Anemia Preparations Advisory Board. This Board has ruled that at present a strength greater than 15 units per cubic centimeter will not be assigned to a preparation because of the possibility of loss, during the concentration process, of unknown factors of value in the treatment of patients with pernicious anemia.*

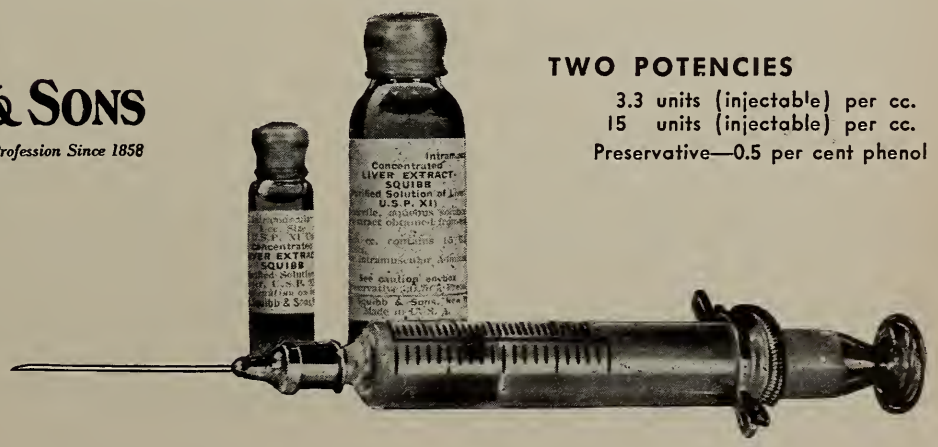
Solution Liver Extract Squibb (3.3 units injectable per cc.) is especially prepared. It is *not* made by diluting Concentrated Liver Extract. It is available in 10-cc. vials.

* N. N. R. 1941, p. 328.

***For literature address Professional Service Department, 745 Fifth Ave., New York, N. Y.***

**E·R·SQUIBB & SONS**

*Manufacturing Chemists to the Medical Profession Since 1858*




**TWO POTENCIES**

3.3 units (injectable) per cc.
15 units (injectable) per cc.
Preservative—0.5 per cent phenol

*(Continued from Page 828)*

rendered during its period of organization and functions.

"The Directing Board expresses to Colonel Seeley its deep appreciation for the great sacrifice which he has made in dislocating himself from actual military duty to serve with us in an executive capacity. He has been most unselfish, and has given unstintingly of his time, energy, and patience in helping to solve many of the problems connected with the functioning of the Procurement and Assignment Service. He has not only labored faithfully at our office in Washington, but he has traveled over the United States contacting many of his professional confrères and explaining to them the purpose for which the Procurement and Assignment Service was organized. His services have been most valuable and have helped to take us a long way in accomplishing the objectives for which it was created.

"The Directing Board expresses to Colonel Seeley its gratitude and thanks for his unselfish devotion to the organization of the Procurement and Assignment Service and wishes for him the greatest success in his new assignment.

"Frank H. Lahey, M.D., *Chairman*
Harvey B. Stone, M.D.
Harold S. Diehl, M.D.
James E. Paullin, M.D.
C. Willard Camalier, D.D.S."

## CONSERVATION OF DEALERS' STOCKS OF MEDICAL AND SURGICAL SUPPLIES

The medical profession and the hospitals of the nation will shortly be obliged to depend upon dealers' stocks of medical and hospital supplies if they are to maintain their present level of efficiency. The continued shortage of raw materials makes it increasingly evident that even the armed forces may have difficulty in securing their requirements. Stocks on the shelves of the dealers of this nation constitute the only reserve of medical and hospital equipment which may be available in the near future to meet civilian needs. The hoarding and dead storage of equipment and supplies for a possible emergency should, therefore, be discouraged. Any unexpected emergency could be met by our present civilian medical and hospital resources; continued disaster could only be met by the utilization of military stores which would be made available if there were urgent need.

Any surplus or obsolete equipment now in the possession of physicians and hospitals ought not to be dispersed at this time, because of the difficulty of replacement and the possibility that it may be needed for the establishment of emergency base hospitals.

## ADDITIONAL EXAMINATIONS

Because of the War Emergency the American Board of Ophthalmology announces the following additional examinations:

**New York City.....December 13 to 15**
**Los Angeles.....January 15 and 16**

At the last meeting it was decided to cancel the 1943 written examination, to include in the oral examination all of the subjects previously covered by the written examination, and to temporarily dispense with the requirement of case reports. The oral examination will probably require two or three days and will cover the following subjects:

External Diseases—Slit Lamp
Ophthalmoscopy
Histology-Pathology-Bacteriology
Ocular Motility
Refraction—Retinoscopy
Practical Surgery
Anatomy and Embryology
Perimetry
Therapeutics and Operations
Optics and Visual Physiology
Relation of the Eye to General Diseases

Formal application on the proper blanks for the December and January examinations must be filed with the Secretary not later than November first.

Please write at once for blanks to: American Board of Ophthalmology, 5830 Waterman Avenue, St. Louis, Missouri.

### PHYSIOLOGIC STUDIES—DEEP SEA DIVING AND AVIATION

The individual subjected to a pressure of 4 atmospheres (100 foot depth) begins to experience symptoms of altitude anoxia—or alcoholic intoxication—impairment of neuromuscular coördination and slowness and unreliability of cerebration. The agent is atmospheric nitrogen. Helium to replace nitrogen creates an ideal atmosphere for depths of 500 feet.

Inhalation of oxygen at 1 atmosphere has been continued for 17 hours without injurious effects. Others have complained of symptoms of substernal distress. At a pressure of 3 atmospheres (75 feet) pure oxygen produces periodic waves of nausea and facial pallor. Progressive contractions of the visual fields, to transient amblyopia, has been repeatedly observed during the fourth hour of exposure. Vision is temporarily lost but a measure of consciousness remains. About an hour of restoration to normal atmosphere is required to return the fields to approximately normal.—Lt. A. R. Behnke—*Bulletin, New York Academy of Medicine,* September, 1942.

# Why Biolac plays an important part in wartime practice

IN THESE DAYS of overwork, you need every minute you can get.

Biolac, because it is a *complete* infant formula, is an important timesaver for many doctors. It saves valuable time in computing feeding directions.

Biolac provides completely for all the nutritional requirements of the normal infant *except* Vitamin C. And it supplies all these food elements in amounts that equal or exceed recognized requirements for optimal growth and health. (See chart below.)

Not only can Biolac save *you* sorely needed time. Biolac formulas are so simple to prepare—requiring only dilution with boiled water as you prescribe—that the busy mother's formula-mixing time is cut to a fraction, as are chances of formula errors and contamination.

For professional information about Biolac, write Borden's Prescription Products Division, 350 Madison Avenue, New York, N. Y.

• *Biolac is prepared from whole milk, skim milk, lactose, Vitamin $B_1$, concentrate of Vitamins A and D from cod liver oil, and ferric citrate. It is evaporated, homogenized, and sterilized.*

ACCEPTED AMERICAN MEDICAL ASSN.

**HOW BIOLAC FEEDINGS COMPARE WITH ESTABLISHED REQUIREMENTS**

| | RECOGNIZED STANDARDS | BIOLAC FEEDINGS |
|---|---|---|
| PROTEIN (gms./lb. body weight) | 1.4 to 1.8 | 2.2 |
| CALCIUM (gms./day) | 1.0 | 1.0 |
| IRON (mgms./100 calories) | 0.75 | 1.25 |
| VITAMIN A (U.S.P. Units/day) | 1500. | 2500. |
| VITAMIN $B_1$ (U.S.P. Units/day) | 83. | 85. |
| VITAMIN $B_2$ (mgms./day) | 0.5 | 2. |
| VITAMIN D (U.S.P. Units/100 calories) | 50. | 63. |

***NO LACK IN***

# BIOLAC

**Borden's complete infant formula**

## FACTS OF INTEREST

*Enrollment of Subscribers:* 422,403 subscribers enrolled as of June 30, 1942.

*Registration of Doctors:* As of August 31, 1942, 3,543 doctors of medicine were registered as participating with Michigan Medical Service—a net increase of 237 participating doctors since January 1, 1942.

*Payments to Doctors:*

| | |
|---|---|
| 1940 | $ 172,115.00 |
| 1941 | 790,733.30 |
| To August 31, 1942 | 1,525,963.15 |
| | $2,488,811.45 |

*Cases Reported:* To September 1, 1942, 78,152 cases of services have been reported to Michigan Medical Service.

## ANNUAL MEETING

The Third Annual Meeting of the Members of the Corporation of Michigan Medical Service was held on September 22, 1942, at Grand Rapids.

In addition to the election of Directors and changes in the Articles of Incorporation, particular interest at this meeting centered around proposed revisions dealing with:

(1) Change in the income status whereby the physician determines the income classification of the patient.

PUBLIC OPINION

The *Fortune* survey, July, 1942, (p. 14) of public opinion in regard to socialized medicine resulted as follows:

Question: Do you think the federal government should or should not collect enough taxes after the war to provide medical care for everyone who needs it?

| Answer: | *Should* | *Should Not* | *Don't Know* |
|---|---|---|---|
| | 74.3% | 21.0% | 4.7% |

On this proposition there is not a single dissenting majority in any income or occupational group or section of the country.

(2) Change in hospital accommodations whereby the payment applies as a credit toward the physician's total charge whenever the patient elects to occupy a private room.

(3) Increased payments from subscribers under which all subscribers are being transferred to higher monthly rates which will increase revenue by 25 per cent, thereby enabling continued full payment to physicians.

PROFESSIONAL OPINION

Responses to the August 17, 1942, letter sent to all Michigan physicians outlining the changes in the Surgical Benefit Plan, were as follows:

76%—Favorable
8%—Opposed
16%—Indefinite

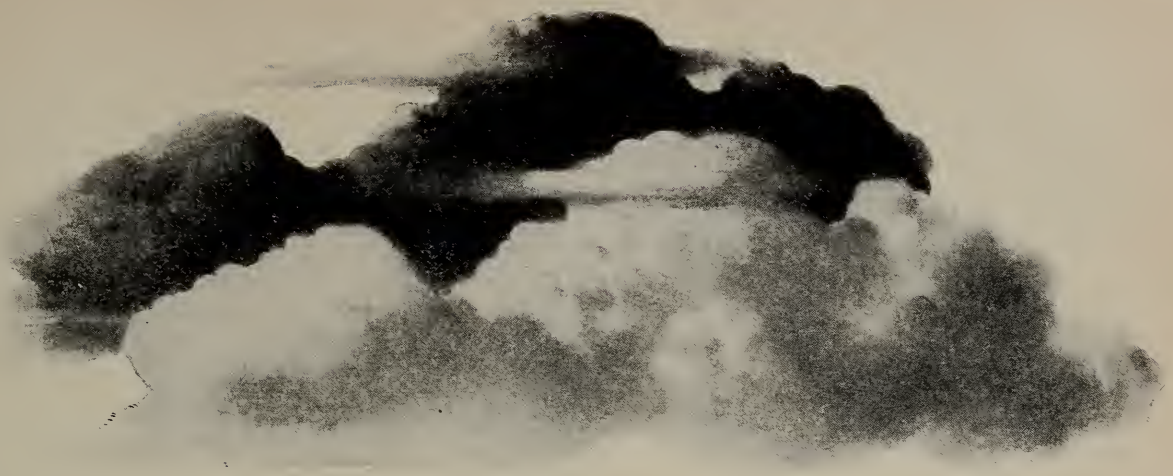
(4) A modernized certificate changed in physical appearance, thus making it more concise, clear and readable.

## PUBLIC HEALTH IN WARTIME

War and preparation for war enhances the possibilities of public health emergencies. Movement of populations into industrial areas prepares the ground for outbreaks of communicable diseases through crowding and improper housing. The problem of housing has been recognized, it is true, but the preparations for meeting the needs cannot keep pace with the population influx. Communities have sprung up over night, workers sleeping in cars, trailers or hastily constructed shacks. In spite of the speed with which public health authorities could move, questionable water supplies were used. In such instances, toilet and excreta disposal facilities were nonexistent.

Industrial hygiene has, during the past two years, received a greatly increased measure of attention from public health authorities. Speed up in industrial production is accompanied by short cuts and a departure from usual safety habits not necessarily by the industry, but frequently by the employe. In recent months labor-management Production Drive Committees, organized by the War Production Board, have been urged to make health conservation an integral part of the production drive through the organization of industrial hygiene and medical services in the plants and also to avail themselves of the public health and medical services in their communities.—Edwin Cameron, in *Delaware State Medical Journal,* August, 1942.

★ ★



# When depression accompanies more fundamental pathology

In many patients, depression may occur as an accompaniment of some more fundamental pathology, either organic or psychogenic. In such cases, the physician should bear in mind that, while Benzedrine Sulfate will not affect the underlying condition, its stimulatory effects may help to alleviate the concomitant depression which so often interferes with the management of the case.

## Benzedrine Sulfate Tablets

Benzedrine Sulfate is primarily useful in depressions characterized by apathy and psychomotor retardation, but is contraindicated in patients manifesting anxiety, hyperexcitability, or restlessness.

The use of Benzedrine Sulfate by normals should not be permitted; it should always be administered under the careful supervision of a physician; and depressive psychopathic cases should be institutionalized.

In treating depressed patients with Benzedrine Sulfate, the physician should bear in mind that any drug which produces pleasant or euphoric effects may prove to be habit forming—especially in unstable or neurotic individuals.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

## INFECTIONS OF THE PHARYNGO-MAXILLARY SPACE

The pharyngomaxillary space often becomes infected; the source of infection being an inflammatory disease of the mucous membrane of the pharynx, particularly of the tonsils. Most frequently the infection travels by continuity or along the lymph channels and produces, first of all, a lymphadenitis. Under circumstances not exactly known, it is possible that the affected glands which are adjacent to the internal jugular vein as well as to the superficial veins of the neck, involve the vein before actual suppuration takes place resulting in a "fulminant sepsis after angina." In contrast to that type of sepsis in the slowly progressive suppuration of the connective tissue, the lymph channels and the lymph glands called "Abscess of the Pharyngomaxillary Space." When the infection has a higher degree of virulence "phlegmon of the pharyngomaxillary space" develops, which may spread toward the mediastinum or the meninges or the floor of the mouth.

Symptomatology, prognosis and treatment of these different types of inflammation are discussed exhaustively.—Hans Brunner, M.D., Chicago, Illinois. (See page 841.)

## SHOVELER'S FRACTURE ("SCHIPPERKRANKHEIT")

Shoveler's fracture or "Schipperkrankheit" should be of especial interest to industrial or traumatic surgeons. It is an avulsion fracture of the spinous processes of the cervico-thoracic spine occurring during the act of shoveling, pushing or pulling. It has been recognized in foreign countries for some time, especially during and since the depression years. It is frequently not recognized and the patient is said to be, or does become neurotic. Careful palpation and lateral or oblique roentgenograms are necessary. Treatment is either by early immobilization and rest or excision of the loose fragments. A case is presented of a man, aged fifty, who had been on relief for many months. Fracture occurred while attempting to throw coal to a bin fifteen feet away. Because two weeks had elapsed since the injury he was treated and relieved by excision of the loose spinous processes.—Clarence H. Snyder, M.D., Grand Rapids, Michigan. (See page 847.)

## THE NEEDS AND POSSIBILITIES OF RESEARCH IN MENTAL DISEASE

There has been a relative neglect of research in mental disease as compared with research in other medical conditions. Recent advances in medical knowledge suggest promising lines of approach to the problem. The research should include studies in biology, biochemistry, neurophysiology, pathology, endocrinology, morphology, psychology, etc., as these subjects may have a bearing on mental disease. Such studies should be supplemented by extensive field studies into social and environmental factors.

In order to carry on research to the degree demanded by the magnitude of the problem, there should be an institute for the study of nervous and mental diseases established in the United States Public Health Service. This institute should have extensive facilities for clinical and laboratory research, and should have an advisory council that would pass upon the merits of research projects proposed by outside agencies and persons. Government funds would be utilized to finance approved projects. By this means the best thought in the country would be mobilized and the total research effort coördinated. —Lawrence Kolb, M.D., Washington, D. C. (See page 849.)

## EMBOLECTOMY OF THE EXTERNAL ILIAC ARTERY—CASE REPORT

The prevailing attitude of hopelessness toward the successful treatment of emboli of the extremities should be dispelled. A successful case is presented in a man of fifty-six.

In briefly reviewing the literature it is felt that the employment of heparin has made embolectomy simple and safe. Paravertebral procaine block should be attempted in most cases. Sympathetic block often makes embolectomy unnecessary and is not sufficiently time-consuming to interfere with prompt surgical treatment should the block fail. In the writers' case embolectomy of the external iliac artery was from the femoral approach using smooth common duct stone forceps to extract the embolus. The patient had auricular fibrillation and recent decompensation. When last seen in January, 1942 (nine months postoperative), he was working eight hours daily in a factory.

More surgeons in smaller communities should attempt prompt radical treatment since no special equipment is needed and time consumed in transportation to medical centers takes away the hope of cure.—By William H. Marshall, M.D., F.A.C.P., and Edwin P. Vary, M.D., M.S., F.A.C.S., Flint, Michigan. (See page 856.)

*(Continued on Page 836)*

# S·I·M·I·L·A·C

● *The name is never abbreviated; and the product is not like any other infant food—notwithstanding a confusing similarity of names.*

The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat (Holt, Tidwell & Kirk, Acta Pediatrica, Vol. XVI, 1933) . . . In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk . . . Similac, like breast milk, has a consistently ZERO curd tension . . . The salt balance of Similac is strikingly like that of human milk (C. W. Martin, M. D., New York State Journal of Medicine, Sept. 1, 1932). *No other substitute resembles breast milk in all of these respects.*

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

**A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and cod liver oil concentrate.**

★ **SIMILAC** } **SIMILAR TO BREAST MILK** ★

**M & R DIETETIC LABORATORIES, INC. • COLUMBUS, OHIO**

*(Continued from Page 834)*

## TREATMENT OF TYPHOID FEVER WITH TYPHOID VACCINE

Following the determination of a skin reaction controlled low dosage method of using staphylococcus toxoid, typhoid vaccine was used for comparative purposes. A skin dose of 10 to 20 million typhoid bacilli seemed of value for skin sensitivity tests. In 1939 an outbreak of typhoid fever occurred in Detroit. Of the thirty-five persons exposed seven took the disease. Exposed persons who did not take the disease showed large initial twenty-four hour skin reactions (7.5 cm. in diam.). In the active disease the twenty-four-hour skin reaction was negative. Treatment consisted of increasing intracutaneous and subcutaneous doses of the vaccine every three to five days. A rapid clinical recovery occurred in eleven days. A total dose of 430 million bacilli were given, 130 million intracutaneously and 300 million subcutaneously.—Kyle E. Townsend, M.D., Detroit, Michigan. (See page 859.)

## MISTAKES MADE IN THE DIAGNOSIS AND ESTIMATION OF DEAFNESS

The old methods were used with instruments which were crude and inexact. The invention of audiometers is a great advance.

The mere use of an instrument of precision is no guarantee of precision of results. Many sources of error are pointed out and the manner in which these can be avoided is carefully given. Inattention to these matters will make the audiometer records quite untrustworthy. But taken with every attempt to avoid the sources of error mentioned audiometer records will be a great source of satisfaction.—D. E. Staunton Wishart, M.D., Toronto, Ontario, Canada (See page 861.)

## SOME OBSTETRIC OPINIONS

I am a conservative, but if we are to keep the practice of medicine in the United States as it is now, there are some things we doctors must do. We must be more honestly aggressive, more of an educator of our individual patients, more cooperative with each other, and we must do the best job we can under the conditions in which we are working.

In my humble opinion there is too much individual autocracy in the practice of medicine. There is not enough give and take, not enough resiliency. In obstetrics particularly, there seems to be too many radical decisions that are based upon relatively small personal experience.—James R. McCord, M.D., Atlanta, Georgia. (See page 866.)

## TREATMENT OF PARKINSON'S DISEASE

The therapeutic effects of atropine sulphate solution and the wines of American and Bulgarian belladonna were observed in a series of thirty patients with Parkinson's disease. It was apparent that 0.5 per cent solution of ordinary atropine sulphate was as good or better than the wine of Bulgarian belladonna while the wine of American belladonna was least effective. The signs of toxicity and of improvement were similar to those previously reported in the literature. Of the two principle types of Parkinsonism, that due to encephalitis responded better to each of the three belladonna preparations. The occasional startling results reported by some investigators in the treatment of these patients with Bulgarian belladonna was not observed.—S. Stephen Bohn, M.D., Detroit, Michigan. (See page 871.)

From *glands and viscera* of meat animals, once waste products of packing houses, come such products as sausage casings, gold-beaters' skins, and perfume bottle caps.

## COMMITTEE PERSONNEL

*(Continued from Page 816)*

### Medical Preparedness

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L. Fernald Foster, M.D.....Bay City
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Traian Leucutia.....Detroit
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The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
Volume 41 October, 1942 Number 10

# President's Address*

Howard H. Cummings, M.D.
Ann Arbor, Michigan

One year ago as we met in this room, war clouds were appearing on our horizon, but a peace-loving American public still believed that our country would not become involved in a foreign conflict. While diplomats in Washington were engaged in conversations, Japan struck without warning, and over night the scene changed.

Today we find the whole world a vast, potential battleground. Casualties, formerly among the fighting forces only, are now being counted by the thousands among the civil populations of European and Asiatic cities, even though men, women and children hide underground like prairie dogs. Our protective isolation is gone. Distance is erased by fast flying birds-of-war which come from far distant places to swoop down upon factories, homes, churches and hospitals, destroying within a few minutes the handiwork of man created through the ages. Hostile craft appear on both of our sea coasts. Submarines rise from the deep and sink our vessels without warning. Our men and women are being uprooted from all peacetime labors and directed into channels of war. Every phase of American life has been changed, for this is war—total war.

As physicians, our duty to our country is clear. If ten millions of our youngest, strongest and healthiest men are to march against our enemies; if they are to fight in all parts of the world, they will not march or fight alone. For every thousand soldiers in our army, six or seven able-bodied, well-trained physicians, equipped with the knowledge of modern medicine and armed with every means for maintaining health, combating sickness and attending the injured, will accompany them. With an armamentarium for modern surgery—plasma and blood to combat shock; sera, vaccines, sulfonamides and other useful drugs to prevent infections—the salvage of human life will be the greatest recorded in history. Every red-blooded American physician will want to play his part in this conflict.

For every man at the front many must remain at home to maintain our services, to supply the instruments of war and to protect our home front. Civilian life with its numerous activities must go on. All young, physically fit physicians are needed for the military services and the older doctors of medicine who were planning on retirement, or slackening their medical activities, must take on an additional load of civilian practice. Many must discard their vacations, hobbies and those periods of well-deserved leisure which they have formerly enjoyed.

In addition to the practice of medicine, physicians must take their place as examiners for the selective service, as members of draft and local appeal boards, and in the emergency medical services in our civilian defense plants. Physicians are needed as teachers in the Red Cross activities; they are needed to replace young teachers called into military service from our medical schools. Our public health services must not be weakened, but rather strengthened, for shifting populations carry with them the hazards of epidemics. The death toll of war must be compensated for by higher birth rates and physicians who play such a vital part in reducing infant and maternal mortality must not slacken their efforts. Let the physicians who must serve their country in their present stations remember that it is as honorable to serve on the home front as on the battle front.

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As members of the Michigan State Medical Society we have many obligations to our members in military service. During their absence we must serve their patients, giving the best medical care we are capable of rendering. We must maintain and extend scientific medicine and be prepared to impart our knowledge of new developments to our military members upon their return to civilian practice. Wars furnish the proving grounds for new medical and surgical procedures. The physicians at home must originate the newer methods but our brothers on the firing line must prove their value.

During the past fifteen years, the Michigan State Medical Society has developed and established two outstanding activities. Both have as their objective the wide distribution of the best type of medical and surgical care for all the people of our State.

The first of these activities—Postgraduate Medical Education—is acceptable to every physician in our Society. For years our medical leaders, our teachers and specialists have recognized the need of bringing to their patients and to medical students the newer and better methods of diagnosis and treatment. However, due to inertia, indifference and lack of time or opportunity, many physicians have rendered antiquated, outmoded, inferior medical services which were taught to them in their medical schools years before. Our Michigan plan of postgraduate medical education makes available and brings to the physician's doorstep every practical advancement in the science of medicine. The steady growth of this movement bespeaks the great value of the plan, not only to the physician but to the people of the state, whom they serve. Although this plan has been proclaimed the best in the country, it is far from its goal. Stability and progress must be assured and to this end your society has established a Foundation for the advancement of postgraduate medical education. Money from your treasury and from a well-known and beloved medical patron has been placed in a fund for this purpose. This is only a nest egg. It is anticipated that wise philanthropists will support this effort and that our own profession will show its appreciation by contributing to it.

The second notable achievement of our State Society is the development and inauguration of Michigan Medical Service. The fundamental idea behind this plan is to provide a means whereby people in the low income group can through small, monthly deductible payments be assured that they will have good medical care for themselves and their families in the event of sickness. The original concept of this plan has never changed in the minds of those into whose hands you placed the gigantic task of developing and managing this service. Circumstances forced your officers to offer, first, protection against the cost of surgical procedures in hospitals. The great fear of the cost of surgical services is today uppermost in the minds of the low income group. However, these same groups of people are now asking for an extension of the plan to include medical conditions treated in hospitals. Gradually through experience and education it is to be expected that our original goal will be reached. Then our contract holders will be willing to set aside enough money to provide for all medical services.

I wish I might say that Michigan Medical Service is acceptable to all of our physicians, but this is not true. Groups have opposed the plan in its entirety; others have been critical of certain features of the plan. Both groups are sincere and honest and from their opposition has come a realization that this project is far from perfect—it has many faults. However, when in two years time one-half million of our citizens accept a medical security plan, when their representatives find it good, when employers believe it desirable for their employes, there must be some merit in the plan.

The House of Delegates of the Michigan State Medical Society is capable of reviewing all features of Michigan Medical Service. When the proponents and opponents of this plan sit down together and without heat apply constructive criticism and mature judgment to their deliberations, out of their discussions will emerge a Michigan Medical Service acceptable not only to the contract holders, labor and industry, but also to the group rendering the service—all Michigan physicians. The issue is upon us. Time is short. The world is changing rapidly. Let us demonstrate a spirit of coöperation among our members. Only in this way can we direct this splendid experiment through uncharted regions, fitting it to constantly changing conditions and finally making it worthy of an honorable profession.

Within a few days the Michigan State Medical Society will pass another milestone. With its

ranks depleted of our younger men and our reserves reduced, many older men who have served this organization and have stepped off stage must again return to its activities, to serve on committees and fill the gaps left by those members in military service. To conserve tires, money and time, fewer and more centralized meetings can be held. Correspondence can replace committee meetings and a well-planned agenda will save much valuable time.

Today our civilization is in great peril. As in the past the medical profession is prepared to give its full strength to winning the war. A long tradition of unselfish service to mankind is inherent in our profession. We will serve our Country; we will march with our soldiers; we will bring every available means of healing and comfort to our fighting forces; we will conserve life and health; we will free our people of the fear of sickness and injury and from any lack of adequate medical care.

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# Infections of the Pharyngomaxillary Space*

By Hans Brunner, M.D.
Associate Professor of Otolaryngology, University of Illinois, College of Medicine
Chicago, Illinois

Hans Brunner, M.D.

*Associate Professor of Otolaryngology, University of Illinois, College of Medicine; Docent at the University of Vienna; formerly Chief of the Otolaryngological Department at the Allgemeine Poliklinik in Vienna; formerly President of the Austrian Otological Society; Honorary member of the American Academy of Ophthalmology and Otolaryngology; Member of the Collegium Otolaryngologicum.*

▪ There is a rather great confusion concerning the nomenclature of parapharyngeal infections. In order to reach a better understanding the writer considers it advisable to use the terms for what they actually mean. Consequently, the term "parapharyngeal infection" includes all infections adjacent to the pharynx, but it does not solely point to infections adjacent to the nasopharynx, the latter being called "infections of the pharnygomaxillary space." The same reasoning holds true concerning the term "peripharyngeal abscesses" which are not actually "peripharyngeal," inasmuch as neither the oropharynx nor the nasopharynx are closed tubes. Therefore, the writer classifies the "peripharyngeal abscesses" as "intramural abscesses of the pharynx."

### Classification

The writer presents the following classification of parapharyngeal infections without considering that proposition as a final solution of the problem.

- Parapharyngeal infections
  - Infections of pharyngomaxillary space
  - Ludwig's angina
  - Retropharyngeal infections
    - Intramural infections of pharynx
    - Retrovisceral infections
    - Prevertebral infections

The following paper deals only with infections of the pharyngomaxillary space, while the other types of parapharyngeal infections are mentioned only occasionally.

### Anatomy

The pharyngomaxillary space consists of an anterior and a posterior compartment. The anterior compartment lies mesial to the mandible, in its inferior portion mesial, and in its upper portion behind the internal pterygoid muscle. It extends up to the base of the skull and communicates with the dura and its sinuses along the pterygoid plexus, the third branch of the trigeminal nerve and the middle meningeal artery. Inferiorly it ends as a cul-de-sac at the stylomandibular ligament and at the upper pole of the submaxillary gland. The anterior compartment contains in its middle portion loose connective tissue, lymph channels, lymph glands, muscles having their insertion at the styloid process, the internal pterygoid muscle and the parotid gland; in its inferior portion, loose connective tissue, lymph channels, lymph glands and the glossopharyngeal nerve, and in its upper portion, loose connective tissue, lymph channels, lymph glands, both pterygoid muscles, the muscles of the soft palate, the veins of the pterygoid plexus, the internal maxillary artery with its branches (middle meningeal artery), the third branch of the trigeminus and the parotid gland.

The posterior compartment also extends to

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*From the Department of Laryngology, Rhinology and Otology, College of Medicine, University of Illinois.
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the base of the skull and communicates with the dura and its sinuses along the internal carotid artery, the internal jugular vein and the posterior cranial nerves. Inferiorly it extends to the upper aperture of the chest. The chief contents of this compartment are in all levels essentially the same; loose connective tissue, the internal carotid artery, the internal jugular vein, the deep cervical glands, the cranial nerves and the sympathetic nerve.

### Pathology

The pharyngomaxillary space often becomes infected. The source of infection is frequently an inflammatory disease of the mucous membrane of the pharynx, particularly of the tonsils. These infections can travel into the pharyngomaxillary space by three different routes: (1) they can pass by continuity from the mucous membrane into the pharyngeal space, (2) they can pass along the lymph channels, and (3) they can pass along the blood vessels. Most frequently the infection travels by continuity or along the lymph channels.

When the infection has penetrated into the pharyngomaxillary space it first affects the anterior compartment, since that part of the pharyngomaxillary space lies closest to the mucous membrane of the pharynx. On the virulence of the bacteria, on the resistance of the patient and probably on the individual variability of the structure of the superior constrictor muscle and the connective tissue depend the further changes within the pharyngomaxillary space.

**First of all, lymphadenitis practically always accompanies acute tonsillitis or peritonsillitis. Under circumstances not exactly known it is possible that the affected glands which are adjacent to the internal jugular vein as well as to the superficial veins of the neck (facial vein, external jugular vein), infect the vein before actual suppuration occurs within the pharyngomaxillary space or within the glands. The infection of the vein may or may not be followed by the development of a thrombus. At any rate, it is possible for blood stream infection to develop soon after the onset of an angina and, therefore, the condition is called "fulminant sepsis after angina."**

That type of sepsis is well known following an infection of the internal jugular vein due to an adjacent gland. However, I wish to emphasize that the same type of sepsis may occur following an infection of the superficial veins of the neck due to an adjacent gland. I saw a lady who ran a septic fever for a period of fifteen days when I saw her for the first time. There was a slight edema of the right mandibular angle and a slight edema of the right arytenoid. At operation there was a discoloration of the posterior facial vein on the right side. After resection of the vein, the patient felt well for several days. Then the patient again ran a septic fever due to a mediastinitis, which was drained through a posterior mediastinotomy without discovering frank pus. The patient was finally cured.

The pathologic findings in such cases is seldom conspicuous, and I wish to emphasize that cases of fulminant sepsis after angina occasionally do not present a marked pathology even on autopsy.

In contrast to fulminant sepsis is the slowly progressive suppuration of the connective tissue, the lymph channels and the lymph glands within the parapharyngeal space, the "abscess of the pharyngomaxillary space." The suppuration is so slowly progressive that the abscess may reach an enormous size and be surrounded by a thick capsule.

When the infection has a higher degree of virulence a "phlegmon of the pharyngomaxillary space" develops instead of an abscess. In cases of that type necrosis of the connective tissue frequently takes place, with the development of but little pus. There are two dangers connected with that type of infection. First, parts of the phlegmon may heal with the development of adhesions forming encapsulated abscesses between the adhesions. Second, the phlegmon may spread within the connective tissue spaces and may affect the veins, particularly the internal jugular vein, with subsequent sepsis.

The spreading of the phlegmon may take place in the following directions:

1. The phlegmon may penetrate from the anterior compartment into the posterior compartment of the pharyngomaxillary space and spread downward along the sheath of the blood vessels, resulting in thrombosis of the jugular vein, mediastinitis, edema of the larynx, pleuritis and metastases.

2. The phlegmon may penetrate from the anterior compartment into the posterior compartment and spread upward along the sheath of the blood vessels, resulting in one of the following conditions: erosion

of the internal carotid artery, phlebitis of the cavernous sinus, meningitis and abscess of the brain.

3. The phlegmon may spread from the anterior compartment along the styloglossal muscle, resulting in phlegmon of the floor of the mouth and possibly, although very rarely, osteomyelitis of the mandible.

## Symptomatology

*Symptomatology:* The symptoms of the inflammatory diseases of the pharyngomaxillary space are dependent (1) on the localization and (2) on the character of the inflammation. In general, one can distinguish between (a) general symptoms and (b) local symptoms. The local symptoms, in turn, can be divided into organic and mechanical symptoms.

*Fulminant Sepsis.*—In cases of fulminant sepsis the general symptoms are in the foreground, viz., septic fever and chills and later enlargement of the spleen and jaundice. In these cases also metastases may occur. Of great importance are the blood findings. First, the absolute number of leukocytes is important. Various findings are noted. There are cases in which marked leukocytosis occurs, but there are also cases in which leukopenia and even an agranulocytosis is found, the latter cases having a poor prognosis. Furthermore, the eosinophiles are of importance, since the prognosis improves when these cells appear within the blood stream.

The local symptoms are of less importance in fulminant sepsis. Slight swelling of the glands is seen at the angle of the jaw and along the jugular vein, but similar findings may be obtained with common peritonsillitis. However, a complication must be suspected when the jugular vein is tender along its entire course or can be felt as a firm cord or when there is a diffuse swelling below the mandible or of the aryepiglottic fold.

The paucity of local symptoms explains the frequent errors in the diagnosis of these cases. Usually the condition is mistaken for pneumonia, typhoid fever or acute arthritis. Therefore, it must be borne in mind that in every case of angina an infection of the pharyngomaxillary space is to be suspected when the fever has not disappeared within three or four days or when chills are observed during that time. This is particularly true when fever or chills are observed after the angina definitely has subsided.

*Abscesses.*—With abscesses of the pharyngomaxillary space, general symptoms are of less importance than with fulminant sepsis. Chills are rare, and the temperature rises only to about 100.4F. Accordingly, signs of a general blood stream infection seldom appear in these cases. Only with more progressive cases are there higher temperature, moderate leukocytosis (often without shifting to the left) and sometimes signs of a kidney infection. The general symptoms, of course, increase rapidly when the abscess perforates its capsule and spreads into the connective tissue.

Contrary to the general symptoms, the local symptoms, particularly the mechanical symptoms are marked in these abscesses. Most striking is the swelling at the angle of the jaw which may extend to the tip of the mastoid process. The swelling is firm, little movable, painless and covered by a normal or cyanotic skin. The swelling grows relatively fast and may reach the size of a fist. As these abscesses, as a rule, are covered by a thick capsule, fluctuation is frequently absent. The swelling gives rather the impression of a glandular tumor. Against that diagnosis, however, speaks the rapid growth of the swelling and the absence of general malaise. It is understood that these swellings may produce a reduction of the movements of the head.

The abscesses do not grow only from within outward; they also grow inward and may extend upward along the vertebral column. As a result of that growth, the tonsils and the lateral wall of the pharynx may bulge inward and the palatopharyngeal arch and the aryepiglottic folds may become edematous, so that difficulty in swallowing is noted. Finally, a moderate degree of trismus is occasionally found due to inflammation of the internal pterygoid muscle and the pterygomandibular ligament.

If the abscess develops in the upper portion of the anterior compartment or when it extends into that area, organic symptoms are added to the mechanical symptoms mentioned above. These organic symptoms originate particularly in the trigeminal nerve. The patient complains of pain in the teeth and of headache, which radiates to the temporal area, to the ear or to the occiput. I call particular attention to the last mentioned symptom, as some writers explain the headache as a symptom of basilar meningitis. Although that might occasionally be the case, I found that

the headache is more often due to a neuritis of the auriculotemporal nerve, which leaves the third branch of the trigeminus just below the foramen ovale.

In one case concerning an infant, two years old, suffering from a huge abscess within the retrovisceral and pharyngomaxillary space, I noted after the endoral opening of the abscess an edema of the lateral parts of both eyelids on the diseased side. The edema disappeared after dilatation of the incision and administration of sulfathiazol. It is possible that the edema was due to an infection of the veins within the inferior orbital fissure. When such abscesses reach a certain size they may perforate spontaneously into the mouth or occasionally into the external auditory canal. Unfortunately, it is more common for these abscesses to perforate into the retrovisceral space or into the posterior compartment of the parapharyngeal space.

*Phlegmon.*—As far as the clinical aspect is concerned, phlegmon of the pharyngomaxillary space lies between fulminant sepsis and abscess of the pharyngomaxillary space. If the phlegmon develops in the typical manner it is characterized by general symptoms as well as by local symptoms. So far as the general symptoms are concerned, fever and chills occur. Nevertheless, there are exceptions in so far as a phlegmon of the pharyngomaxillary space may set in with a critical downfall of temperature signalizing a collapse of the circulatory system. Other general symptoms are leukocytosis (seldom leukopenia), jaundice of the sclera, disease of the kidney, swelling of the spleen, septic edema of the larynx, edema of the brain and metastases. I saw a case, in which an edema of the lingual surface of the epiglottis, of the aryepiglottic fold and the arytenoid area on the diseased side developed within five hours. However, the edema of the larynx very seldom leads to serious disturbances of breathing.

At the onset of the phlegmon the local symptoms are of course never so marked as in the instance of an abscess. Nevertheless, swelling at the angle of the jaw, trismus, and sometimes swelling in the region of the parotid gland may be found in the early stage of the disease. The local symptoms, however, increase when the phlegmon spreads into the surrounding tissue, which can occur (1) along the vessel sheath downward, (2) along the pterygoid plexus and the third branch of the trigeminus nerve, upward and (3) along the styloglossal muscle, forward.

In the first event, there is tenderness along the jugular vein, tenderness above the clavicle and sometimes a swelling of glands along the jugular vein. A mediastinitis may develop in about 29 per cent of the cases.

In the second event, there is pain in the teeth, headache and a feeling of obstruction of the ears, due to a serous catarrh of the middle ear. I wish to repeat that from the headache *per se* the diagnosis of a beginning basilar meningitis should not be made.

In the third event, a phlegmon of the floor of the mouth develops with swelling of the skin as well as swelling of the mucous membrane at the floor of the mouth.

The phlegmon usually spreads in more than one direction, however, one direction is always the chief direction.

The symptomatology given above is somewhat schematic. Nevertheless, it must be emphasized that each of the different types of inflammation within the pharyngomaxillary space present a different clinical entity, at least in the majority of instances.

## Prognosis

The prognosis is dependent (1) on the constitutional resistance of the patient, (2) on the character of the inflammation and (3) on the time when the operation is performed. Of five patients with fulminant sepsis, two died and three were cured by an external operation. Of thirteen patients with abscess within the pharyngomaxillary space two died and eleven were cured. One of the two fatalities was due to a carcinoma of the tonsils and the other to a metastatic brain abscess. Among the eleven cases who recovered, eight had an external operation, two were incised through the mouth and one ruptured spontaneously into the external auditory canal. Of seven patients with phlegmon of the pharyngomaxillary space, four died and three were cured. Therefore, I lost eight of twenty-five cases, which makes a mortality rate of 32 per cent.

## Treatment

Undoubtedly infections of the pharyngomaxillary space in the beginning stage can be cured by the administration of sulfonamides. That

holds particularly true for children. However, one must watch the masking effect of the drug, as shown by the following case which does not concern a pharyngomaxillary, but a retrovisceral abscess.

### Typical Cases

E.McC., thirty-five years old, white male, suffering from schizophrenia. For four weeks he complained of difficulty in swallowing; for twelve hours of difficulty in breathing. There is no evidence of his having swallowed or aspirated a foreign body. At admission on August 22, 1940, a large swelling was found in the left half of the posterior wall of the pharynx. The temperature was 99.2. The diagnosis of a retrovisceral abscess was made. The abscess was incised in the mouth and about 50 c.c. of pus escaped. Sulfanilamide was given, but the abscess as well as the difficulty in swallowing and breathing recurred. Therefore, the abscess was again incised within the mouth on August 26 and about 200 c.c. of pus, containing streptococcus viridans, B. catarrhalis, staphylococcus aureus and fusiform bacilli, escaped. On August 28 I saw the patient for the first time. His rectal temperature was 105 and an external operation was performed.

An incision was made along the left sternocleidomastoid muscle. The sheath of the great blood vessels was not opened, but pulled aside and from the retrovisceral space a great amount of pus escaped. The connective tissue of the retrovisceral space was inflamed downward into the posterior mediastinum. The latter was closed by a tampon and the abscess was drained. The wound was left open. Sulfanilamide was given until September 7 and the fever decreased. On September 11 the temperature rose again to 104 (rectal) and there was purulent sputum. The diagnosis of bronchopneumonia was made and as the sputum contained pneumococci type VII sulfapyridine was given. In fact, the temperature decreased and was normal for a period of five days. On September 17, sulfapyridine was withdrawn and on September 18 the temperature again rose to 102 (rectal), presented an intermittent character and reached 103 on October 3.

The wound, which had in the meantime closed to a great extent, was reopened. There were necrotic granulations along the vessel sheath and the connective tissue of the retropharyngeal space was still inflamed. The wound was left open.

After the operation the temperature decreased by lysis. On October 7 sulfapyridine was again given and the temperature became normal. On October 10 sulfapyridine was withdrawn and the temperature rose again to 101. On October 15 again sulfapyridine was given. The temperature fell to 102 and a subcutaneous abscess developed over the left thyroid cartilage. On October 17 there were 3,400,000 erythrocytes, 10,0000 leukocytes and 60% hemoglobin in the blood. Therefore, sulfapyridine was withdrawn and the temperature further oscillated around 102 F.

On November 2, I reopened the wound. There were granulations and adhesions between the retrovisceral space and the vessel sheath, which were entirely removed. Toward the posterior mediastinum the retrovisceral space was closed by firm adhesions. The wound was left open and drained by iodoform gauze and a rubber drain. Following the operation the temperature was 96.4° F. for two days, and then became normal and the patient became well without the administration of any antiseptics.

It seems that the sulfonamides have the best effect in the beginning abscesses of the parapharyngeal space in children. I saw a young woman who had a severe septicemia, apparently originating from the mucous membrane of the pharynx. The disease did not respond to high dosages of sulfanilamide but recovered almost immediately when the sulfanilamide was withdrawn.

### Surgical Considerations

Despite the good effect of sulfanilamide in certain cases, the majority of these cases must be treated surgically.

In cases of fulminant sepsis and of full fledged phlegmon only the external approach can be considered. The same holds true in cases of abscess when the general symptoms are well marked and the swelling is of a large size. In abscesses, however, which have not progressed so far, a trial should be given to the endoral approach. That holds particularly true for children. The endoral operation should be performed in such a manner that the superior constrictor muscle is perforated. It will, as a rule, be necessary to remove the tonsil which has to be considered as a tampon preventing the free drainage of pus from the pharyngomaxillary space into the mouth.

In the external approach, the anesthesia is a difficult problem when one has to deal with severe sepsis. Local anesthesia is dangerous. I saw a case of phlegmon of the pharyngomaxillary space with severe sepsis who died immediately after the subcutaneous injections of novocaine. Likewise rectal anesthesia induced by avertin is dangerous for patients who suffer from inflammatory disease of the upper respiratory tract. Further, there are at least two cases on record, in whom respiration stopped immediately after the slow intravenous injection of 3 to 4 c.c. of evipan sodium. General anesthesia with ether is apparently the best method, provided that the mu-

cous membrane of the upper respiratory tract is not markedly inflamed. Intratracheal ether anesthesia is but seldom necessary in cases of edema of larynx. However, in one of my cases it was very satisfactory. I prefer the incision along the anterior border of the sternocleidomastoid muscle, as that incision avoids the marginal branch of the facial nerve, which runs along the inferior border of the mandible, and it can be easily prolonged if the surgical findings demand thorough exposure of the vessel sheath. In cases of abscess within the inferior part of the pharyngomaxillary space, only the elevation of the sternocleidomastoid muscle, as a rule, is necessary to drain the abscess. In cases of phlegmon and in cases of an abscess situated in the superior part of the pharyngomaxillary space, the space has to be drained from the stylomandibular ligament. That operation is simple if the anatomic conditions are not obscured by adhesions or by swelling of the glands and edema of the connective tissue. The stylomandibular ligament must be perforated between the parotid and the submaxillary gland and a dilator must be introduced in the direction to the tip of the nose.

If the anatomic situation is not easily recognized, it is advisable to incise the superficial fascia of the neck and to expose the posterior belly of the digastric muscle. The muscle is followed to its tendon which can be located where it perforates the stylohyoid muscle. Above the muscle, the pharyngomaxillary space can be entered if the submaxillary gland with the external maxillary artery is retracted forward toward the submental spine. Occasionally, it is necessary to elevate the submaxillary gland with its capsule or even to remove the inflamed gland, a procedure which is not followed by any ill effects on the patient.

The sheath of the blood vessels must be extensively exposed in all cases in which symptoms of sepsis were noted. At first, it should not be incised, but inspected. If there are adjacent glands, they must be removed. If, after removal of the glands, the sheath is apparently normal, further exposure should not be made. If there are pathologic changes in the sheath, it must be incised. One of my cases of phlegmon of the pharyngomaxillary space was cured by incision of the vessel sheath without drainage of the pharyngomaxillary space, although there was a definite trismus, but no symptoms from the trigeminus.

Further surgical procedure is dependent on the changes in the wall of the internal jugular vein. In a case of simple periphlebitis, characterized by a thickening and white discoloration of the wall of the vein, by fever, but without chills or other septic symptoms, the periphlebitic focus should be thoroughly exposed without incision of the vein. If, however, intermittent fever, chills or other septic symptoms were noted, the vein should be ligated below the diseased area or the entire focus should be removed. At any rate, the wound should be left open and kept open during the after care for a period of one to two weeks. That point can not be overstressed. One has to keep in mind that the soft tissue of the neck has a very marked tendency to occupy its old position when not pulled aside by the pus or by the drainage tube. If there is no obstacle, the blood vessels and the muscles fall back in their old position and prevent the proper drainage from the parapharyngeal spaces, as it happened in the case mentioned above and in several other cases. Therefore, it is necessary to dilate the wound gently during every change of dressing, as long as there is active inflammation within the pharyngomaxillary space.

In the past, I have performed prophylactic mediastinotomy in some of these cases. At present, I do not consider that procedure necessary. If the focus of infection is under control, gravitation of pus practically never occurs. If during the operation it should be discovered that the phlegmon extends down into the mediastinum or near it, a cervical mediastinotomy should be performed, which, however, is not prophylactic, but a curative one under these rare circumstances.

MSMS

Dr. Philip Levine of Newark, N. J., announced to the Congress on Obstetrics and Gynecology the discovery of a new factor in red blood cells which accounts for hundreds of infant deaths before or soon after birth. It is a mysterious substance which makes babies poison their mothers and, in a reaction, kill themselves. The principal use of the discovery to date is in testing the blood of the mother, who may require a blood transfusion during or after childbirth.

# Shoveler's Fracture ("Schipperkrankheit")*

By Clarence H. Snyder, M.D., F.A.C.S.
Grand Rapids, Michigan

CLARENCE H. SNYDER, M.D.
*A.B., Greenville College, Illinois, 1921; M.D., University of Michigan Medical School, 1924; M.S. (Orthopedic Surgery) University of Michigan, 1934. Fellow, American College of Surgeons; Diplomate, American Board of Orthopedic Surgery; Fellow, American Academy of Orthopedic Surgery; Member, Clinical Orthopedic Society; Michigan Orthopedic Society; Michigan State Medical Society; Orthopedic Surgeon Butterworth Hospital; Consultant in Orthopedic Surgery, St. Mary's Hospital, Grand Rapids, Michigan.*

"SCHIPPERKRANKHEIT" or shoveler's disease is a fracture of the spinous processes of the upper dorsal or lower cervical region of the spine occurring without direct trauma. This condition has been recognized but slightly in this country and very few articles regarding it have appeared in the American medical literature. Hall[4] read an article on "Clay-Shoveler's Fracture" at the Australian Orthopedic Association Meeting in Sydney in 1938, the paper printed in *The Journal of Bone and Joint Surgery,* January, 1940. In a discussion of "Fractures of Vertebral Processes" in the *Proceedings of the Staff Meetings of The Mayo Clinic*[3] in January, 1942, the condition is again mentioned and references are made to Hall's article. Waters, Firor and Kaplan,[10] drawing from the German literature, mention this condition in the 1941 Year Book of Radiology. It is also referred to in an abstract in *Surgery, Gynecology and Obstetrics* of November, 1941, under the title "Increasing Frequency of Fractures of the Spinous Processes in Shovel Workers," by Canigiani.[2] However, we do not know of any original American article being written on this subject, or of any American case reports. In "Progress in Orthopedic Surgery for 1940," Hall's article is also referred to and then we read: "Editor's note: This is an interesting and unusual fracture. One of us (H.E.C.) recently had such a case, in which the fracture had been unrecognized by the attending physician and diagnosed as sprain of the neck. It is our experience that this fracture is healed by rest, with strapping or other means of support, and does not require surgical intervention."

Hall gives three possible mechanisms by which these fractures may be explained: "(1) Direct muscle violence; (2) reflex muscle contraction; (3) whip-like pull transmitted through the supraspinal ligaments." The theory of direct muscle violence he considers the most acceptable. Waters, et al., use the terms creeping fracture, overload injury and insufficiency disease in referring to this condition. They bring out the thought that it is caused by increased traction of the muscles while the worker is in a bent or stooped posture. Structural changes first occur and then a severance of continuity produces the avulsion fracture. Canigiani states that the injury is caused by the unilateral pull of the rhomboid and trapezius muscles during the action of shoveling or scooping. According to him and also Kaspar,[5] the avulsion fracture occurs in persons of poor physical condition or those who have not done manual labor for some time. It usually comes on after they have been engaged in shoveling for a number of days or weeks.

Hall says that it is only since 1933 that this fracture has become a clinical entity and its name implies that it is an occupational injury. Kaspar thinks that it should be designated as a vocational affection rather than as trauma. The condition occurs in shovelers, tree-grubbers, hurlers, pushers and pullers, and sometimes in athletes, in which case it is called a sport injury. We do not believe that it necessarily occurs always in those who have been out of work for a long time or in those who have been on the relief rolls; although it seems to have occurred in Germany mostly in this group and for that reason has been given the name "Schipperkrankheit." "The fracture occurs at the weakest point in the spinous process, which is the narrowest portion and is from one-half to three-quarters of an inch from the tip."

Bergman[1] reports one case, a patient of fifty-two years who had been out of work for seven years. After working a few weeks as a shoveler, he felt what was called a painful rent between his shoulder blades. There was limitation of movement of the head and shoulders and pressure pain in the region of the cervico-thoracic spine. The roentgenograms showed avulsion fracture of the spinous process of the first thoracic vertebra. After resting about a week he returned to shoveling and within a half hour had

*From the Department of Orthopedic Surgery, Butterworth Hospital.

another sudden attack of pain in his cervicothoracic region; however, he continued to shovel for four more days. The roentgenogram at this time showed dislocation downward of the spinous process of the first thoracic vertebra and in addition avulsion of the spinous process of the seventh cervical vertebra with caudal dislocation of the fragment.

Fig. 1. G. A. R., aged fifty. Fracture of the spinous process seventh cervical vertebra occurring in a shoveler. At operation the tip of the first thoracic vertebra was also found to be fractured.

Fig. 2. Oblique view showing fracture of spinous process seventh cervical vertebra. Oblique views sometimes show fractures in the cervicothoracic area when they cannot be otherwise demonstrated.

Lickint's[6] patient, aged thirty-seven, collapsed and fell to the ground when he developed sudden violent pain in the cervical region while shoveling clay. There was pain on attempted movement of the shoulders, pain in soft tissues on both sides of the thoracic and cervical spine, but only slight tenderness to pressure over the cervical vertebra. A diagnosis of shoveler's fracture was made but not confirmed by x-ray. A later roentgenogram revealed avulsion of the tip of the spinous process of the first thoracic vertebra which had not been considered earlier. The patient had been treated for a "rheumatic affection" in the interum.

Lönnerblad[7] calls this condition a "hurler's" fracture or "hurler's back," saying that clay often sticks to the spade when laborers are digging ditches. There is a wrenching of the arm and occasionally a rupture of the trapezius or rhomboid muscles or a fracture of the spinous processes, usually the seventh cervical or first thoracic. In twelve clinical cases examined, eight had fractures of the spinous processes.

Matthes[8] saw and treated 100 cases of shoveler's disease in 1935 while only seventy cases had been reported up to that time. This discrepancy he attributes to a possible lack of recognition of the condition. He found that the fracture occurs usually twenty to forty-five days after the beginning of a steady shoveling job or during the course of a cricket game when the player swings and misses the ball. It would seem therefore that it does not always occur as a deficiency disease and the history must be carefully elicited.

Rostock's[9] case, a man of fifty-three working only twenty days as a coal shoveler sustained a fracture of the first thoracic spinous process while pushing a wheelbarrow. The process was excised within twenty hours. Recovery was uneventful but the histological examination revealed bone changes so extensive that "they could not possibly have developed" within one day after the injury.

## Case Report

G. A. R., aged fifty, had been on relief for many months. Two months prior to the present trouble he had worked "off and on" unloading coal. On February 26 he slipped while in the act of attempting to

throw a shovel full of coal to the bin about fifteen feet away, and felt something snap between his shoulder blades. Patient was seen at his home and crepitus could be felt in the cervico-thoracic region of the spine. I did not know about the condition called "shoveler's disease" but felt that this patient had a fracture of the spinous processes in this region. X-ray examination was advised, but the question of responsibility arose; the patient could not afford an x-ray examination and the company did not feel that they were responsible. He was then referred to a free clinic and states that he was told that a fracture could not occur in this way and that roentgenograms were not necessary. Rest and bakes were advised. At the end of two weeks the patient called at my office with his original complaint. On careful palpation the fractured spinous processes could be moved about and again x-rays were advised and secured. At this time the insurance company decided to accept the responsibility and the patient was taken to the hospital. X-ray report was as follows: "X-ray examination shows that the tip of the spinous process of the seventh cervical vertebra is fractured, the distal fragment being displaced downward in the soft tissues (Fig. 1). Because two weeks had already elapsed it was deemed best to excise the fragments. This was done under local anesthetic; the spinous processes of both seventh cervical and first thoracic were loose and were removed. The wound healed per primum and the patient made uneventful recovery. He later returned to his regular work and states he has only an occasional symptom in this area, such as a feeling of tightness between the shoulders after a full day's work.

### Summary

A short résumé of shoveler's fracture and an illustrative case are presented. This should be of especial interest to doctors engaged in industrial and traumatic surgery. "Schipperkrankheit" is a fracture of the spinosu processes of the cervico-thoracic spine occurring in shovelers, hurlers, "pushers," and sometimes in athletes. It probably is caused by muscle pull. Structural bone changes are said to occur, followed by avulsion fracture. The condition is frequently undiagnosed. Roentgenograms should be made in every suspected case, including oblique views. Careful palpation is advised. The prognosis is favorable. Treatment is either immobilization and rest or excision. Massage is contraindicated. The patient easily develops a neurotic attitude if proper diagnosis and treatment are not instituted.

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MSMS

# The Needs and Possibilities of Research in Mental Disease*

By Lawrence Kolb, M.D.
Assistant Surgeon General
United States Public Health Service
Washington, D. C.

Lawrence Kolb, M.D.
*M.D., University of Maryland, 1908. Assistant Surgeon General, U. S. Public Health Service, Washington, D. C., in charge of the Division of Mental Hygiene. Fellow, American College of Physicians, American Medical Association, and American Psychiatric Association. Member, National Committee for Mental Hygiene, American Association for the Advancement of Science, Research Council on Problems of Alcohol, Academy of Medicine of Washington, D. C., American Prison Association, Southern Medical Association, Medical Society of St. Elizabeth's Hospital, Kentucky Psychiatric Association. Trustee, William Alanson White Psychiatric Foundation.*

During the early period of medical history mental diseases, more than any other diseases, were the peculiar problem of gods and demons. Other diseases might yield to physical remedies and were studied with this idea in view, but throughout most of the developmental period of medical science and practice man seldom attacked mental disease except by appeals to gods or castigation of the demons. After 2,000 years of un-

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disputed possession, the hold of the gods and demons was broken, or at least weakened, by the ancient Greeks about 550 B.C.; but with the rise of medieval civilization the demons regained their position in this field of human ills and remained in possession of the field until comparatively recent times. The devils never completely yielded their influence during the period of the intellectual supremacy of the Greeks, and there always remained some unreconstructed rebels to dispute the later reign of the gods. The advent of the moon as a physical etiological factor was a sign of progress. Then we finally got rid of the moon, without, however, discarding its only actual contribution, an etymological one, the word itself—"lunacy." It is now time to put aside the indifference and sense of helplessness that have retarded the study of the psychoses.

The stronger hold of the spirits on mental diseases than on other human ills was largely responsible for the early separation of psychiatry from general medicine. The effect of that separation outlasted its cause; and so when the modern intensive study of other diseases began, mental diseases were still regarded as inevitable and hopeless. Therefore, they were relatively neglected, and to this day there is an appalling apathy concerning research into what is really the greatest medical problem of modern times, the treatment and prevention of mental disease.

**The extent of this problem is not generally appreciated. Some measure of it, however, may be gained from the fact that at the end of the year 1939 there were on the books of hospitals for mental disease in the United States 531,002 patients. An additional 115,633 patients were on the books of institutions for the mentally deficient and epileptic. During this same year there were admitted for the first time to these various institutions 121,536 patients. But these figures, large as they are, express only a fraction of the problem. They do not take account of the thousands of psychotic patients outside of institutions, and of additional thousands of persons suffering from neuroses, alcoholism, drug addiction, epilepsy, and personality deviations that lead to delinquency and crime. In spite of the fact that one out of every 20 persons born in this country may expect to spend part of his life in a mental hospital, there has yet been comparatively little research into the fundamental causes of psychoses, the knowledge of which would lead to effective measures for prevention and cure.**

The problem of research apparently has been considered a function of the States, where the greatest opportunity lay, and the States have neglected it. They have neglected it partly because of apathy of the workers who had access to necessary clinical material, but mainly because of lack of financial support. The States and other governmental agencies spend more than $200,000,000 a year on the care of the mentally ill, but less than $1,000,000 on research. In the short-sighted policy shown by these figures the possibility of relieving human suffering and a great part of the financial burden caused by mental disease have been ignored. Happily, however, there is a growing interest in research in this field, stimulated in part by discoveries that have tended to raise hope and to dissipate the more or less general fatalistic notion of the inevitability and hopelessness of certain types of mental disease. These discoveries have come in some measure from researches in other fields of medicine. There has been an overflow of benefit from these other fields into the field of mental disease that has broadened the viewpoint of psychiatrists and opened the eyes of the medical profession in general to the needs and possibilities of specific research into the mental diseases.

In the course of development of our knowledge in this field the pendulum of psychiatric thought has swung backward and forward between the organic and the psychogenic theories of causation. There have been important discoveries, but too close adherence to one-sided viewpoints has tended to slow up progress that might have been made by a sustained, broad, general view of the effects on the mind of instabilities in the purely physical organs, in the psyche itself, or the environment.

Psychiatry has to do with the mental health of human beings. Its main emphasis is on the psychoses, but it is vitally concerned with nervous disorders short of the psychoses, such as the neuroses and epilepsy, and in behavior anomalies of all types, including juvenile delinquency, alcoholism, and crime. It is not

within the scope of this paper to do more than mention some of the important milestones of the progress that has been made in this wide field.

### Milestones of Progress

It is a step forward when Bernheim and others, through the study of hypnotism, showed that unconscious factors influence the behavior of subjects without the subject being aware of it. Later, Freud replaced hypnotism with his method of free thought association. Freud's researches extended into every field of mental activity. After discounting the extreme outpourings of some of his followers and rejecting, or at least reserving judgment on, much of which Freud himself has said, we can still give him credit for doing more than any other psychiatrist to reveal the relationship between normal and abnormal minds, and to increase our understanding of human motives and behavior.

Among Freud's more important disciples are Adler and Jung, who used his method of free association and dream analysis, but disagreed as to the all-importance of the sexual influence. Jung brought in broad cultural and racial motivations, in addition to more personal ones, to explain human behaviour. Adler stressed compensation for organ inferiority, expressed as a desire for power and regard, as motivating all human performance. There are other distinguished followers and mild dissenters who have made important contributions to Freudian psychology, and still others who, in voluminous outpourings, have "expounded" it or muddied the waters in this field and helped to create an impression that psychoanalysis is the all of psychiatry.

Pavlov's conditioned reflex method, by which the problem of behaviour was studied by direct laboratory experiments, stimulated the development of a school of psychiatry known as behaviourism, which would abolish instincts and explain behaviour on the basis of conditioning influences and habit. These two related methods have opened up promising and inviting vistas of experimental research into human behavior that will doubtless be more extensively explored.

Important contributions, especially in the therapy of the neuroses, have been made by other psychological approaches to psychiatry, but no narrow psychotherapeutic approach seems to be effective with the psychoses. The field of psychoanalysis expounded by Freud was so fascinating that for a number of years other approaches received very little attention; but psychogenesis, mental mechanisms, and interpretative psychiatry, important as they are, are not sufficient alone to explain mental disease and abnormal human behaviour. Freud himself seemed to recognize this, although some of his followers have apparently forgotten it. Psychoanalysis represented an extreme swing away from the organic point of view. There is a tendency now in the other direction, but it would be a grave mistake if, in our researches, we should ignore the importance of psychogenic factors.

The field of psychogenic diseases has been constantly narrowing, but the psychological approach is important, even in the treatment of some of the purely organic diseases. Interest in psychosomatic medicine attests this, and we should not lose sight of the fact that psychological factors may produce physical diseases, namely, tensions that bring on goiter, and anxiety and fear that tend to produce stomach ulcer. The production of experimental neurosis in dogs by irritating psychological stimuli is further evidence that we must look further than primary physical anomalies or inferiorities for a complete understanding of many nervous and mental symptoms and for their prevention and treatment.

Recent advances in medical knowledge suggest lines of approach to the study of the fundamental basis of mental disease. Psychiatry has benefited by researches that were undertaken without psychiatric aims, but the field is too large to depend upon chance findings. There needs to be an intensification of effort with specific psychiatric goals. Studies should be made in biology, biochemistry, neurophysiology, pathology, endocrinology, morphology, psychology, et cetera, as these subjects may have a bearing on mental disease. Such studies should be supplemented by extensive field studies into social and environmental factors that influence behaviour and mental health.

### Pellagra Research and Its Significance

The extensive researches into pellagra were made because this disease was an important

cause of disability and death; and when Goldberger discovered that pellagra was due to a nutritional deficiency, he had no idea of the importance of his work in contributing to the understanding of certain types of mental disease. We now cure pellagrous psychosis in a very short time by the use of nicotinic acid, and along with this it has been discovered that many of the confusional states in persons thought to be suffering with senile dementia clear up rapidly under the influence of nicotinic acid, clearly showing that many of these states are due to deficiency of this vitamin.

The most important thing derived from these discoveries is the suggestion that they give us of the possible metabolic cause of many abnormal mental states. Some of these may be due to failure to ingest vital food elements, and others to fundamental deficiency in metabolic processes that interferes with the proper assimilation of vital elements that are ingested. Such deficiency might be remedied by appropriate treatment, based on precise knowledge of the disordered mechanism, knowledge that can be acquired only by painstaking research. The back wards of many of our poorly supported mental hospitals doubtless contain many deteriorated patients formerly thought to have regressed to a more comfortable level to escape from painful complexes, et cetera, but who really are suffering from irreversible neural damage due to long continued metabolic deficiency. Some of these patients came in with recoverable conditions, but through neglect, labelled care and treatment, they have become hopeless life patients.

*Shock Therapy.*—The fate of the shock therapy in mental diseases has not yet been determined. Some fear that the damage to brain structure caused by it may overbalance the good that it does, and others feel that intensive treatment by older methods brings about as many recoveries. For the purpose of this discussion we may discount these differences of opinion and reap what benefits we may from our knowledge of one thing that shock therapy does. It undoubtedly reverses mental processes very rapidly in many psychotic cases, and so far as is known it does so by interfering with the metabolism of the brain. Insulin does this by decreasing the amount of glucose that normally goes to the brain. Metrazol and electric shock, by interfering with the oxygen necessary to burn glucose, produce the same result in terms of reduced energy to the brain. The fact that many of the patients cured by this method, eventually relapse is not important. The important thing for our purpose is that through a shock which for a short period interferes with what is supposed to be normal physiological brain function, abnormal psychological function is replaced by normal psychological function. The question raised is, What has happened to bring this about? and this question can be answered only by a painstaking research into the chemistry and physiology of the brain and of the various organs and glands that coöperate with it to produce normal mental function.

*Refrigeration.*—Another drastic empirical method of treatment of the psychoses that furnishes food for thought is refrigeration. This method has been used only on a few patients, but the observation has been made that, as the body temperature falls, a delusioned restless patient may become clear and calm. The question here is, What normal process has been started or what abnormal process has been stopped that causes the abnormally functioning mind temporarily to function normally? In raising the question about the improvement seen here and in other forms of shock treatment we discount, without totally discarding the psychogenic explanation that the patient retreats into normality in order to escape from a disagreeable treatment that is more painful to him than the complex that originally caused him to withdraw into a psychosis.

The importance of metabolic disturbances in the production of mental diseases is indicated by what has recently been learned of the avitaminotic etiology of some of the mental disorders of chronic alcoholism. It has been clearly demonstrated that Wernicke's syndrome and the encephalopathy of nicotinic acid deficiency, two conditions common in chronic alcoholism, are due to a vitamin deficiency. It is also strongly suggested that Korsakoff psychosis and delirium tremens are at least dependent in part on nutritional deficiency. The importance of the alcoholic psychoses and of disabling chronic alcoholism short of psychosis is not generally appreciated. Alcoholic psychoses account for 4.5 per cent of all first admissions to mental hospitals in the United States, and it is conservatively estimated that at any

one time in the country there are at least 200,000 persons rendered practically helpless by chronic alcoholism. It is a psychiatric problem and one demanding intensive research. These researches need to have a much broader base than merely an exploration of the nutritional factors. Attention is called to it here because the known nutritional factors in some alcoholic mental diseases, as well as in pellagrous mental disease, suggest the utmost importance of the biochemical approach in the exploration of those mental diseases whose etiology is yet obscure.

It is impossible, even if it were desirable, to dissociate the study of mental disease from the mental deficiencies and from organic nervous diseases. Each of these groups of diseases is dependent largely upon disorders of the brain and supporting organs, and what we find out about one group may have great significance for the understanding of the other two.

Mental deficiency has many causes, including heredity and the early destruction of cortical cells, due to injury or infections. The glandular etiology of cretinism is well known. The recent discovery that failure of the lipoid metabolism may be the cause of that hereditary deficiency known as amaurotic family idiocy suggests a fascinating line of approach to other obscure defects, both nervous and mental. The discovery, by purely empirical methods, that prostigmin would relieve the symptoms of myasthenia gravis and that quinine would relieve the symptoms of myotonia has great significance for research. The significance of the liberation of acetylcholine at the myoneural junction in myasthenia gravis is not clearly understood, but that it is vitally involved has suggested a chemical as well as a pharmacological and physiological approach to this and other nervous diseases, including the muscular dystrophies and atrophies.

A complete understanding of such obscure nervous diseases may not enable us to do much for the sufferers from these conditions, but the knowledge gained in arriving at such an understanding will provide a material contribution with a beneficial overflow that may be useful if applied to the general field of nervous and mental disease. There is some evidence that climate may be an important factor in the epidemiology of multiple sclerosis. This suggests numerous possibilities and warns that in the study of these obscure diseases we should not allow our attention to be frozen by striking discoveries to narrow lines of approach.

### Fields for Research

There are numerous ramifications of indicated fields for research. The significance of allergy in such conditions as migrain and epilepsy, and possibly in the production of certain nervous and episodal mental symptoms; the changes in electrical brain potential shown by the electroencephalogram in epilepsy and drug addiction, and possibly in certain mental diseases; the endocrine deficiencies known to cause nervousness and mental deficiency, a well as feminism, with its resulting personality differences; the vitamin deficiencies that cause mental disease and neural degeneration; the experimental production in human beings of neurasthenic and other nervous symptoms by induced thiamin deficiency; the almost magical curative effect of nicotinic acid in confusional states due to food deficiency; the changes in brain metabolism and mental states brought about by shock therapy; the temporary appearance of menopausal vaginal epithelium in young women passing through mental depressions, as well as many other significant phenomena too numerous to be mentioned here, suggest a broad laboratory and clinical basis upon which mental disease must be investigated to supplement psychological and social studies, which can never be neglected.

The mental diseases whose etiology is definitely known, namely, those due to trauma, alcohol, syphilis, and other infections, et cetera, do not present such baffling problems to clinicians, research workers, and health officers as that large body of disorders usually referred to as functional or as of psychogenic origin. The causes of the former group being known, preventive measures are obvious, and the research worker, armed with definite information about what it is that he is attacking, has been able to give the clinician an effective remedy in some instances, notably in the psychoses due to syphilis and pellagra. Dementia præcox is one of the worst diseases that afflicts mankind. It attacks large numbers of youths and young adults, and tends to become chronic. Approximately 46 per cent of all resident patients in State mental hospitals have this disease. We must supplement our psychological approach to these diseases and to manic depressive psychosis by other research methods. The solution of the problems in connection with the

latter group, that is, the functional diseases, has been left largely to philosophically- and psychologically-minded medically-trained persons, who have done much to explain the mental mechanisms involved, but who, despite their success with the neuroses, have done very little to prevent or cure the psychoses. In order to solve these diseases we must look also to chemistry, physics, biology, sociology, physiology, and other related sciences, and bear in mind that we are not studying the mind alone or the body alone or the social organization alone. It is a psychosomatic study in which we must regard the body and mind as mutually dependent upon one another and upon environmental factors to produce an integrated unit, and in order to understand this unit we must collect and integrate facts from all the sciences that may affect this unit. Quoting Lewis, "The concepts and systems of study as outlined and followed by the old masters in psychiatry, valuable and epoch-making as they were, are not sufficiently elastic to satisfy the demands of present experiences and observations." Already, according to Lewis, there are "studies in autointoxication, brain chemistry, general biochemistry, physical chemistry, endocrinology, heredity, morphology, psychology, psychoanalysis, psychometrics, social neuroses of childhood temperaments of children, psychology of destitute children, criminology, drug addiction, various phases of human conduct, influences of emotions over the bodily functions, many problems suggested by the picture in epidemic encephalitis, and the ever-widening field of the epilepsies."

### Subsidized Fields of Research

The researches carried on in this broad field, while encouraging as indicative of a healthy point of view, have been inadequate, desultory, and uncoördinated. The available material and talent have not been utilized fully or to the best advantage. The universities have expended their efforts almost solely on other problems, leaving research into mental diseases to the States, and the States have ignored it. The support given by the States to their mental institutions has been in the main so meager that the talented men connected with these institutions have had neither the time nor the equipment to conduct fundamental research. New York has a real research psychiatric institute, and a few other States have given some support to the problem. The foundations have helped some, but not in proportion to that given by them for researches in other branches of medicine. An outstanding contribution is the grant of approximately $40,000 a year by the Scottish Rite Masons for research in dementia præcox. These contributions reflect a growing appreciation of the needs and possibilities of research, but the support so far received is only a fraction of what is needed.

Because in this country the care and treatment of mental patients is a public problem and the various governmental units look after 97.7 per cent of all psychiatric cases that need institutional treatment, most of the initiative for, and sustaining work in, psychiatric research should come from governmental agencies. The ideal situation would be for every State to have a research psychiatric institute in connection with its State hospitals; but for financial reasons, as well as for an unfortunate lack of interest, the realization of this situation seems to be a hopeless dream. Private agencies cannot be expected to take up the burden. It is, therefore, the duty of the Federal Government to conduct psychiatric research and to stimulate, coördinate, and finance such research by the States, universities, clinics, and other agencies who may show an intelligent interest in it. Isolated individuals have in the past made brilliant contributions to psychological and philosophical medicine; but from the very nature of the problem the financially unsupported individual cannot delve deeply into the fundamental sensitive base upon which mental symptoms are probably engrafted, and which must be understood if we are ever to make appreciable progress in the prevention and cure of the psychoses.

The Federal Government has been liberal with medical research. It supports in Washington the National Institute of Health and the National Cancer Institute. The Public Health Service is allowed about $3,000,000 a year for medical research, but only about $30,000 for research into mental disease. Goldberger and others worked on pellagra for about 20 years at the National Institute of Health and in the field before the cause of the disease was found. This one discovery is worth more to humanity than all the money that has been spent on the Institute since its foundation.

Similar continued studies are necessary for many of the mental and nervous disease problems. The situation should be met by the estab-

lishment, in the Public Health Service, of an institute for the study of mental and nervous diseases, including epilepsy. This institute should carry on extensive laboratory, clinical and field studies into all phases of the problem arising in connection with these diseases. It should have a national advisory council of capable scientists who would act in an advisory capacity and pass on the merits of requests for funds to conduct research at universities, clinics, and hospitals, thus capitalizing on talent and ideas wherever they may be found. It should coördinate research in the mental and nervous disease field by library researches that would enable it to place in the hands of all interested persons and institutions information as to what is being done by other workers in various parts of the world, so that there would be no unnecessary duplication of effort, and it should establish fellowships for the training of research workers at the institute and elsewhere.

An important study that cannot be adequately conducted except by an institute or other organization that is assured of receiving continuous financial support over a number of years is that of the heredity of mental disease. There is some rather inadequate information about this subject at the present time which indicates an hereditary basis for such diseases as dementia præcox and manic depressive insanity; but mental reactions are so complex, and so many factors enter into the production of mental disease, that the mere examination of clinical histories in mental institutions is insufficient to give an accurate picture of the possible influence of heredity. What is needed is a series of elaborate clinical and field studies of several thousand families, extending through at least three generations. Only in this way will we be able to evaluate the relative importance of psychological, physical, and social factors in the production of mental disease and give heredity its proper place in the scheme of things.

A committee of leading psychiatrists and neurologists organized to study the subject of research into nervous and mental diseases met with the Surgeon General of the Public Health Service last December and recommended to him the establishment, in the Service, of an institute to study mental and nervous diseases. The committee recommended that the institute conduct and encourage basic laboratory research, clinical research, and field studies, the laboratory research to include biochemical, vitamin and other nutritional studies, physiological studies, electrophysical studies, pathology, morphology, psychology, biology, and studies including a possible physical basis for the psychoneuroses — the clinical studies to embrace newer methods of treatment, the effect of new drugs, the field studies to include environmental causes of mental diseases, heredity, the study of psychosomatic relations, the study of results accomplished by child guidance clinics, studies of the psychiatric aspects of alcoholism and crime. These studies are not to be made solely by the institute, but by grants-in-aid from the institute, which would act as a synthetizing and coördinating body.

## Conclusion

Research into nervous and mental diseases offers a most hopeful field for progress in the medical sciences. With the accumulation and proper integration of facts from all sources, means may be found to prevent and to cure many of the mental cases that, in the present state of our knowledge, are hopeless. Doubtless we will eventually find that many of the cases depend upon irreversible structural anomalies and are hopeless. Others will be found to be due to hereditary or acquired disorders of biochemical or other physical nature that can be prevented or cured. Still others will be shown to be due to the impact of social and psychogenic factors upon a more or less sensitive background. Many of these will be prevented or cured.

In the projected studies we must never lose sight of eugenics. It would doubtless be unfortunate for the race if we could prevent and cure mental diseases based upon hereditary weaknesses unless, at the same time, we developed some technique for eliminating these weaknesses from the people, because, after all, the good that prevention and treatment may do would eventually fail of purpose if it is accomplished by increasing the number of fundamentally unstable people in the population.

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Refuse to discuss a doctor's ailment with him unless you are being asked to treat him. But if you are, don't let him share the responsibility; treat him as you would any other patient. And when you yourself are ailing choose your doctor as decisively as you choose your solicitor, and put yourself as unreservedly in his hands.—*Lancet* (through *Lilly's Physician's Bulletin*).

# Embolectomy of the External Iliac Artery

## Case Report

By William H. Marshall, M.D., F.A.C.P.
and
Edwin P. Vary, M.D., M.S., F.A.C.S.
Flint, Michigan

WILLIAM HENDERSON MARSHALL, M.D.
*M.D., Trinity Medical College, Toronto, 1901. Member, Michigan Trudeau Society, Tri-State Medical Society, Michigan State Medical Society. Director of Medical Service, Hurley Hospital, Flint, Mich. Fellow, American College of Physicians.*

EDWIN P. VARY, M.D.
*A.B., M.D., University of Michigan Medical School, 1930. M.S. in Surgery, Horace Rackham School of Graduate Education, 1939. Fellow, American College of Surgeons. Member, Michigan State Medical Society.*

■ THE reason for this report is that most physicians and the majority of surgeons still have the attitude of hopelessness toward the treatment of emboli of the extremities in spite of the present favorable results that can be expected of immediate surgery. We believe that such an attitude should be dispelled. It is our hope that a recounting of a successful case coming from outside a large medical center should encourage more physicians to attempt early radical treatment.

Although the actual technique of successful blood vessel surgery has been known for some years the recent knowledge of the pathologic physiology involved has made[5,45] the procedure safe and the results favorable. Ssabanejew was the first to attempt femoral embolectomy in 1895. In 1907, Moynihan of Leeds, Sampson Handley of London,[1] and Trendelenburg of Germany, all reported unsuccessful attempts. Labey reported a successful operation in 1911.[5,11] The greatest advances were made by Professor Einar Key,[17,18] of Stockholm who reported thirty-two embolectomies with complete recoveries between 1912 and 1934. In 1933 Pearse[41] was able to report a series of two hundred eighty-two (282) cases from the literature. With the refinement of heparin, its clinical application first in Sweden and then Canada where Best, Charles and Scott[2] were collaborating with Murray, blood vessel surgery has seen rapid advances. In 1941 Murray[33,34] was able to report many successful embolectomies in the major arteries of the extremities and even in the abdominal arteries. Many more successes are being reported.

Ochsner and Gage[40] have rationalized the pathologic physiology of secondary vasospasm always associated with vascular disease.

Their clinical application of this has been a major contribution to the subject of vascular disease as a whole. Both this and the employment of heparin have made embolectomy of the arteries of the extremities a relatively safe, simple, and successful procedure. It is our feeling that more embolectomies should be attempted in the smaller medical centers since specialized equipment is unnecessary and the time taken to transport a patient any distance reduces the hope of successful embolectomy nearly to zero.

### Case Report

A. B., aged fifty-six, was seen by one of us (W. H. M.), April 22, 1941, at which time, he appeared to be a well-developed man of five feet ten inches, weight one hundred six (106) pounds. He stated that he had always been well until the past year, although he came from an arteriosclerotic family and knew that he had had a high blood pressure for some years. He had been conscious of some shortness of breath and irregularity of heart action. During the previous three weeks this had increased. He coughed a good deal, slept poorly and had discomfort in the upper abdomen. For the previous two or three days he had a continuous aching sensation in the precordium. He was started on digitalis and appeared to be improving until the day of his embolism.

The patient called on the afternoon of April 24, 1941, because of an agonizing pain in his left leg. The attack came on suddenly while he was lying in bed following momentary faintness. The pain was excruciating and extended from the lower thigh to the toes; was most severe in the region of the calf. There was almost immediately an onset of numbness and a sense of coldness in the extremity. After a few minutes he could not move his thigh or leg muscles. This history over the telephone suggested the diagnosis and because of previous experiences with similar cases we both immediately called on the patient.

He was obviously in great pain, was ashen pale. His foot and leg showed extreme pallor; later this extended to the thigh. The skin was cold from the foot to the thigh and anesthesia was present in the foot and leg. Later on the anesthesia level rose toward the thigh. Pulsation in the dorsalis pedis and posterior tibial and in the popliteal could not be demonstrated. The knee and ankle jerks became absent in the hospital to which he was sent immediately after administering ½ grain morphine sulfate. The heart was moderately enlarged. There was a soft systolic murmur at the apex which was not transmitted through to the back. The pulse was 130; the rhythm was the irregular irregularity of auricular fibrillation; consequently

the blood pressure readings ranged from 170 to 120 systolic and 110 diastolic. The radial artery felt rather hard. Crepitant râles were heard at the bases of both lungs and the liver was 2 cm. below the costal margin.

The day of his embolism the need for prompt action was recognized. Consequently within forty-five minutes of the time he was first seen, the patient was admitted to Hurley Hospital and given low spinal anesthesia. We chose to expose the popliteal artery because of questionable pulsation in the femoral and the failure to palpate a mass there. The incision of the popliteal region was 8 cm. long and after the artery was mobilized it was opened by a 2 cm. longitudinal incision. An expected clot was not seen. There was a slow ooze of blood which was fairly dark. Common duct stone forceps were inserted upward to a distance of about 10 cm. but no embolus was encountered.

The posterior tibial aretry was opened through a 2 cm. incision and heparin was irrigated through the vessel from below upward. Both arteries were closed with fine silk in a continuous suture. Ten c.c. of heparin were injected into the popliteal vein. The patient was then turned to a semi-Fowler's position and the femoral artery exposed. Areolar tissue and sympathetic nerve fibers were stripped from the artery so that it was completely mobilized. The artery was opened through a 3 cm. incision 2 cm. below the inguinal ligament, but there was no active bleeding. Silk traction sutures were inserted as in a choledochostomy. Gall-bladder forceps were inserted in the external iliac artery. At a distance of about 6 cm. a firm body was grasped. This was easily extracted and with the gush of blood, two smaller pieces came with it. They were all irregular, dark red, well-organized thrombi obviously originating from some distant focus. The artery was compressed intermittently while the incision in the artery was closed with a fine suture on an atraumatic needle, everting the intima. The artery was observed for about five minutes and its pulsations were strong and obviously transmitted as far as the finger could palpate. There was no change in color of the extremity and due to the irregularity of the pulse, no dorsalis pedis or popliteal pulse could be felt by an assistant. A fat pad was drawn across the suture line and the wound closed in layers. The patient was rather irrational until the embolus was removed, when he immediately became rational.

It is of some interest that we moistened all sponges in a solution of citrate throughout the operation. The dilution employed was 80 c.c. of 2.5 per cent sodium citrate to 500 c.c. of sterile water, which is the exact amount we add to 500 c.c. of blood in transfusion.

His after-care consisted of 10 c.c. doses of heparin every four hours for thirty-six hours but his clotting time could not be extended beyond six minutes. The extremity was placed under a cradle of lights extending from the abdomen to beyond the toes, using pillows as a support. The following morning the extremity appeared normal but no pulsations could be felt in the extremity except at the femoral, probably due to his continued auricular fibrillation.

He returned to work as machine repair mechanic on July 7, working forty hours a week. He was on his farm from July 29 to September 2, working about eight hours a day without discomfort. On September 3, he returned to the factory, working seventy hours a week. He was examined on October 1 and December 26, 1940. He had no dyspnea, no edema, and no precordial discomfort. The left leg gives him no trouble, but the right one cramps a little if he walks very fast. The absence of claudication on the affected side is probably due to the stripping of the sympathetics from the femoral and popliteal in mobilizing the artery. It will be interesting to watch claudication return on that side. His pulse was 80, and the rhythm that of auricular fibrillation. His blood pressure was 150/110 and his urine was normal. He has no other complaints. Digitalis gr. 1½ daily keeps his heart rate satisfactory.

## Discussion

The diagnosis of arterial embolism was made with certainty by the severity of symptoms and clarity of physical signs in our case. Occasionally the spasm associated with thrombosis may be mistaken for embolism. The most difficult differentiation is found associated with trauma, especially compound fractures. In such cases, operation would seem preferable to conservative measures, while in non-traumatic embolism paravertebral injection should be tried first.

The origin of the embolus is of some interest. In our case there were no signs or symptoms of bacterial endocarditis although the pathologic report showed the emboli to be "fibrinated and purulent." There was no history suggestive of a mural thrombus from a myocardial infarct. We believe our case falls into the group most commonly found in embolism of the aorta and its branches; namely, those patients with auricular fibrillation. When mitral stenosis supervenes, thrombi are most likely to form in the auricular appendage of the dilated left auricle. When dislodged this passes through the left ventricle and lodges in any branch of the aorta. On another occasion one of us (W. H. M.) saw an embolism following the resumption of normal sinus rhythm with the use of quinidine. Naturally the drug was blamed but here we have an instance without any change in the fibrillation.

**The problem of localizing the embolus is not always easy unless the patient is thin and the mass is accessible to palpation. The usual mistake, which we made, is gauging the level of the obstruction by the location of the secondary vasospasm. Secondary vasospasm is always distal to the obstruction and accounts**

for most of the pain of embolism. Tests such as arteriography are clinically inadvisable for they are time-consuming. There is less harm in making several exploratory incisions than opening far above the embolus. Ochsner and Gage[40] have contributed the only rational conservative alternative to immediate surgery. Paravertebral sympathetic injection with 2 per cent procaine hydrochloride obliterates vasospasm, renders collateral circulation not only efficient but actually augments it, and often makes embolectomy unnecessary. This procedure, though we did not use it, should nearly always be done for it is not time-consuming and is an excellent adjunct if insufficient collateral circulation still demands embolectomy. Experience in other cases in which paravertebral injection was employed have been favorable to date in our hands. If paravertebral injection cannot be accomplished due to technical failure no harm has been done. We felt that embolectomy should be done forthwith in our case because of the evident strain on his already weakened cardiac reserve and our conviction that his advanced sclerosis would make his collateral circulation inefficient in spite of paravertebral block. It has long been known that emboli in the peripheral arteries causes a marked fluctuation in blood pressure. It was quite striking in our case that as soon as the embolus was removed the patient became rational even though he had had no pain from the beginning of the operation.

When an embolus lodges in a major peripheral vessel, cessation of circulation by the plug and by vasospasm of the artery, its collaterals, and, to some extent, its venous supply causes early tissue death. Pearse[41] has shown that the circulation must be reëstablished within the first ten hours to hope for 40 per cent success. The first five hours is better and after twenty-four hours only 8 per cent success can be expected. It is obvious that conservative measures as an alternative to surgery except the one of paravertebral injection have no place in the treatment of embolism except as adjuncts. Once tissue damage approaches necrosis in the arterial walls secondary thrombi are very troublesome. It follows that transporting a patient long distances to larger medical centers from smaller communities is undesirable and, we believe, unnecessary since no special equipment is needed other than the ordinary supplies common even to the small general hospital. Heparin is available in practically all communities to help prevent secondary thrombus formation at the site of the arterial incision. Gentleness in the handling of tissues is more important than special equipment or reagents.

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# Treatment of Typhoid Fever with Typhoid Vaccine*

## A Skin Reaction Controlled Low Dosage Method Preliminary Report

By Kyle E. Townsend, M.D.
Detroit, Michigan

Kyle E. Townsend, M.D.
*B.Sc., 1921; M.D., 1923, Ohio State University. Medical Staff Deaconess Hospital. Internal Medicine Dept. Research in Clinical Immunology. Member, Michigan State Medical Society.*

In a previous article the author reported that specific-like results were obtained with the use of staphylococcus toxoid by means of a skin reaction controlled low dosage method of administration. The method consists of a preliminary intracutaneous injection in order to determine skin sensitivity to the toxoid prior to therapy. Persons showing *negative* skin reactions were given weekly intracutaneous and subcutaneous injections of the toxoid. Dosage was gauged and controlled by the size of the previous weekly skin reaction.

Specific-like results were obtained by this method in group I carriers of the staphylococci having *negative* skin reactions and chronic or recurrent staphylococcic infections. Rapid clinical improvement was often observed within seven to fourteen days after the injection of as little as 0.77 units of the toxoid. Large local and general reactions were avoided and the total maximum dose of toxoid injected was only 10 to 20 per cent of the total amount of toxoid usually injected.

Assuming that the results observed with the use of staphylococcus toxoid could be explained according to the posology theory of Wright, other commercial antigens were used by the same method for comparative purposes.

One of the few antigens found to be suitable for use by the method was typhoid vaccine.

Various amounts of typhoid vaccine were injected intracutaneously. In different individuals similar doses of typhoid vaccine showed different size twenty-four-hour skin reactions. In the same individual the size of the twenty-four-hour skin reaction varied with the amount of typhoid vaccine injected.

A skin dose of 10 to 20 million typhoid bacilli (0.01 to 0.02 c.c.) seemed to be suitable for skin testing purposes. When this dose of vaccine was given to persons who had had typhoid fever large *positive* twenty-four to seventy-two-hour skin reactions were observed, often 7.5 cm. in diameter. *Negative* or slightly positive twenty-four-hour skin reactions were occasionally observed in persons who had not had typhoid fever.

These skin reactions have been observed before. Gay[1] in his review of typhoid fever in 1918 stated that Gay and Force and Force and Stevens noted similar skin reactions when a typhoid extract called "typhoidin" was used intracutaneously in an attempt to determine susceptibility to typhoid fever. In 1930 Tuft[3] proved that 500 million typhoid bacilli given in four divided doses produced the same degree of protection against the disease as 3500 million bacilli given intramuscularly or subcutaneously. He noted that the initial intracutaneous dose of 50 million bacilli produced *negative* or slightly positive twenty-four-hour skin reactions in 84 per cent of the 269 persons being immunized.

A trial of this method of using typhoid vaccine in the treatment of typhoid fever was made in 1939 during a sporadic outbreak of typhoid fever in Detroit. I attended the family who entertained a group of thirty-five persons at a summer cottage near the city. The source of the disease was traced to this gathering. Of the thirty-five persons exposed seven contracted the disease. Five others were known to have had low grade fever and intestinal symptoms for several weeks following their exposure.

*From the Staphylococcus Streptococcus Typhoid Carrier Clinic, Deaconess Hospital, Detroit, Michigan, in coöperation with the Michigan Department of Health and the Detroit Department of Health.

TABLE I. METHOD OF TREATMENT AND RESULTS

| Temp. | Day | Intracutaneous (million bacilli) | Skin Reaction | Subcutaneous (million bacilli) |
|---|---|---|---|---|
| 104 | 1 (home) | 10 | neg. | |
| 105 | 2 (hosp.) | | | |
| 106 | 4 | | | |
| 106 | 5 | 20 | neg. | |
| 104 | 6 | | | 50 |
| 103 | 8 | 50 | neg. | |
| 101 | 10 | | | |
| 98.8 | 11-13 | | | |
| 98.8 | 14 | | | 100 |
| 98.8 | 17 (home) | | | |
| 98.8 | 18 | 50 | pos. | |
| 98.8 | 26 | | | 150 |

## Material Used

Stock typhoid vaccine* (1000 million bacilli per c.c.) was used. The vaccine was prepared from the Rawling's strain of the organism used by the Army Medical School, the United States Public Health Service and the Navy. In September, 1938, the strain was changed to the Panama Carrier Strain 58, as recommended by Colonel Siler after his research.

"The organism is grown on suitable solid culture media, harvested, standardized by dilution made by suitable turbidity standards, injected into animals and compared with standard vaccine used by the National Institute of Health. The vaccine is then released, either on protocol or test by the N.I.H. There is no standard of potency for typhoid vaccine. The protection obtained by the use of the vaccine made from the Panama Carrier strain seems to be considerably greater than that made from the Rawling's strain."†

## Method of Administration and Results

Patient J. B., male, aged two, was given 10 million bacilli intracutaneously when typhoid fever was suspected. *No skin reaction* was observed twenty-four hours later. The temperature at this time was 104 degrees. The Widal Test was negative and did not become positive until four days later. Increasing intracutaneous doses of typhoid vaccine were given every three or four days and subcutaneous doses were added as shown in Table I. Subsequent injections of 20 to 50 million bacilli also showed *negative* skin reactions. On the eighteenth day of the disease a slight *positive* skin reaction occurred after the injection of 50 million bacilli.

Clinical improvement was noted on the sixth day after the injection of 30 million bacilli. The temperature fell from 106 degrees to normal in 11 days after the injection of 130 million bacilli. A total dose of 430 million bacilli was given, 130 million intracutaneously and 300 million subcutaneously. No general reaction was observed following the injections.

Similar treatment was given the two exposed persons because it was indicated. Neither took the disease. The intracutaneous injection of 20 million bacilli in the mother and father showed twenty-four hour skin reactions 7.5 cm. and 5 cm. in diameter, respectively. A similar dose given one week later showed a skin reaction of 4 cm. in the mother and 2 cm. in the father. One week later the injection of 40 million bacilli showed the same size skin reactions. General reactions followed the injections of the vaccine in these persons. Three weekly intracutaneous and subcutaneous injections were given at the same time for a total dose of 480 million bacilli, 80 million intracutaneously and 400 million subcutaneously.

## Comment

The six other persons who acquired the disease had typical protracted typhoid fever. Several had severe complications.

The rapid clinical improvement following the use of 130 million bacilli in a case of typhoid fever corresponds to the clinical improvement previously noted following the injection of 77 units of staphylococcus toxoid in the treatment of acute febrile staphylococcic infections.

The skin reactions observed with the use of typhoid vaccine and previously observed with the use of staphylococcus toxoid seem to conform to the earlier observations made by Gay, Force, Stevens and Tuft.

The skin reactions observed with the use of typhoid vaccine and previously observed with the use of staphylococcus toxoid seem to be the *opposite* to those produced by Schick and Dick Test material, since *positive* skin reactions occur in persons who have had the disease or seem to be protected against the disease while *negative* skin reactions occur in persons actively infected with the disease.

Gay believes that skin sensitization to typhoid vaccine material is necessary to insure protection against the disease.

It is my belief that the total dosage in these cases is still too high. It is not necessary to increase or long continue treatment after the tem-

*Michigan Department of Health Laboratories.
†Moyer, H. Allen: Personal communication to the author.

perature returns to normal. The multiplying, cumulative and sensitizing immune effects should insure sterilization of the stool. Additional dosage can always be given when indicated but we cannot stop the "negative" immune effects of overdosage. Correct dosage can be determined if the method is found of value in the treatment of typhoid carriers.

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# Mistakes Made in the Diagnosis and Estimation of Deafness


By D. E. Staunton Wishart, M.D.
Surgeon-in-Chief, Department of Otolaryngology,
Hospital for Sick Children
Toronto, Ontario, Canada


THE otological mind was long dominated by universally accepted routine hearing tests. In a previous paper, the fallacies of these have been pointed out.[10] At present there is no universally accepted routine hearing examination, but one is in the making.

The old methods were used with instruments which were crude and inexact. New inventions in the electrical world made possible the elaboration of new methods of precision—the audiometers. But while the advance is great it will be seen that the mere use of an instrument of precision is no guarantee of precision of results.

While the electric audiometer was in its early years the older otologists were right in insisting that audiometric methods and also the old methods of investigating hearing should be used; for otherwise there would have been no means of correlating the findings of the new world of otologists with those of the old. That point of view was also valuable because there have been a number of makes of audiometers, the values of which have not coincided and, perhaps, still do not coincide with previous methods of examination. But any idea that tuning fork, voice and whisper tests done in different parts of the country coincided has long been discarded as foolish. Time has, however, shown that some audiometers are reliable. Bunch[1] has testified that in six years there has been no measurable change in the calibration or output of an instrument that has now been in constant daily use for over ten years.

Since the invention of the audiometer a large histopathologic collection accompanied by adequate clinical histories and careful audiometer records has been formed at Johns Hopkins Hospital and will become the basis for the pathologic understanding of deafness. The records are there by the thousands. There is no collection of material in the old world to support the old methods comparable in quality or quantity.

Time has shown that the older methods, even when used with impossibly time-consuming exactitude, cannot give the precise results obtained by the new methods. The older ones should be permanently discarded.

Do not forget that in the future as in the past, the estimation of hearing defects—whether tested by the old or the new methods—is reached only by the exercise of sound clinical judgment.

### Are Tuning-fork Tests Necessary?

Many of you, no doubt, are convinced of the truth of the oft repeated statement that no hearing test is complete if it does not include tuning-fork tests. I challenge the validity of that statement.

How many of you possess eight tuning forks of different pitch? The audiometer provides eight. How many possess tuning forks lower than 64 d.v.? The 16 d.v. and 32 d.v. forks are scarce, expensive and unreliable; confusing adventitious sounds accompany the vibration of each of these. The audiometer provides a satisfactory 64 d.v. tone. With it a perfectly satisfactory estimate of the lower limit of a patient's hearing can be made. How many of you possess tuning forks higher than 4096 d.v.? The audiometer affords a satisfactory estimation of a patient's upper tone appreciation. For it gives a tone of 8192 and even higher. Those of you who still use whistles and monochords produce sounds whose pitch and intensity you know not and which you cannot reproduce with certainty.

*Read before Section of Otolaryngology, Michigan State Medical Society, Grand Rapids, September 19, 1941.

The Weber and Rinne are the only other tuning-fork tests which need be considered. Of what real value is the Weber test today? A decision as to whether the Rinne is positive or negative can be made much quicker and with more accuracy by using the audiometer than by using the tuning fork. The bone-conduction and air-conduction thresholds for the 512 d.v. tone are found and charted. If there is a difference of more than 45 decibels between the bone and air-conduction thresholds the Rinne will be positive; if this threshold difference is less than 45 d.v. the Rinne will be negative. Bunch[2] states that by the use of the audiometer at least two factors of error in the standard Rinne test can be eliminated; the error due to the constant decrement of the fork and the error due to possible variations in pressure and in the selection of the point of contact.

The pitch-audiometer properly used will provide you with every bit of information you can get from the instruments of yesterday and very much more accurately.

### Advantages of the Audiometer

One of the most important bits of information that has emerged from the use of the audiometer is that it is extremely difficult to test one ear apart from its fellow. The hearing of one ear cannot be accurately evaluated unless the opposite ear is absolutely excluded. This is now *attempted* by masking. Masking consists of making such a sound in the other ear that it cannot perceive the sound put into the ear being tested. So important has masking become in the estimation of hearing that any test done without masking can be discarded.

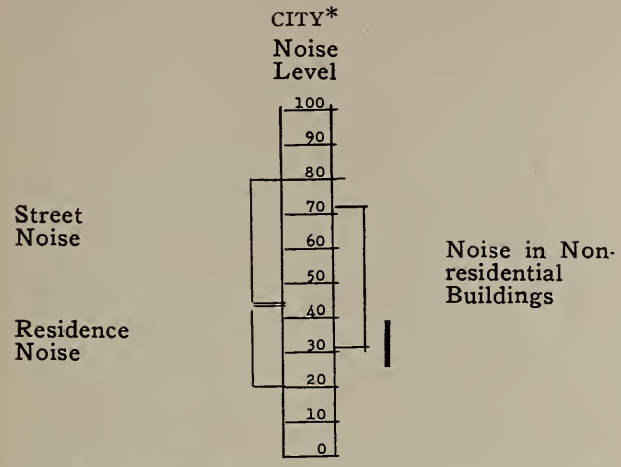
Fig. 1. Apparatus described by Holmgren.[5] Fig. 2. Picture of ear pieces strapped on with white web.

The ear to be masked is tightly packed with a plug of absorbent cotton thoroughly impregnated with a mixture of equal parts of wax and paraffin. Over the ear is placed a large ear pad of soft sponge rubber in the center of which is the telephone earpiece which carries the masking sound. The masking sound is provided by an electric buzzer and its intensity varied by calibrated steps.

Even these devices will not completely mask an ear for, even when carefully used, sound from the opposite ear will reach the masked ear if the masked ear has 40 decibels of hearing greater than its fellow. This inability to mask out the good ear still renders imperfect the estimation of hearing in a seriously impaired ear.

A second source of error lies in the application of the earpiece to the ear. Sound perceived from a telephone earpiece depends in part on the intensity of the sound, in part on the distance

CHART I. RANGES OF NOISE FOUND IN NEW YORK CITY*




*Values for street noise are taken from the Noise Abatement Commission survey; for other noises, from the N.E.L.A.—A. T. & T. Company survey. All values are averages from the locations tested.

of the vibrating disc from the eardrum, and in part on the exclusion of outside sounds. Various types of apparatus have been devised to hold these earpieces on the ear in constant fashion. One of these is seen in Figure 1.[5] But these are cumbersome and difficult to use. The simplest available practical method is to strap the earpieces to the ears snugly by a plain strap of webbing put around the ear (Fig. 2).

The earpiece from the audiometer must be snugly fitted in the same manner. It can be properly adjusted and held to the ear to be tested by the same head strap which holds the masking earpiece.

Another source of error discovered by the use of precision instruments and which the older otologist had no means of estimating is outside noise. Hearing by the older methods was calculated by the distance intervening between the subject and the sound. This intervening distance laid the procedure open to error because of surrounding noise. As Newhart[7] says, "Besides distracting the attention of the person being tested the noises mask the sounds used for testing." The noise levels encountered are well shown in Chart 1 adapted from the report of the New York Noise Abatement Commission of 1930. A heavy line has been drawn to show how the noise level of the average city doctor's office has been found to range between 25 and 35 decibels. This is equal to about one quarter of normal hearing. The practical point about this is that examinations made in such a noise could miss a hearing loss that is less than 25 per cent (Wells[9]). To avoid this serious error modern hearing testing requires the use of rooms that are approximately sound-proof.

All examinations of the hearing are for one of two purposes, namely: first, simply to estimate the hearing acuity,—and second, to make a diagnosis, to know the kind of trouble that is causing the impairment in the hearing.

The first objective can be attained by the use of two audiometers, the 4A and the 2A, in the ordinary office without masking and if necessary by a nurse or technician. The first objective is a perfectly laudable one. But the average specialist will attain no further information than the above approximation unless he himself performs the test with masking, in a sound-proof room and using the additional precautions which will follow.

The audiometrist—or layman—who are endeavouring to "optometrise" the otological world would desire earnestly to get from my paper a means of discovering how to achieve the second objective, namely how to make a diagnosis. Fortunately or otherwise, the phenomenon of hearing is extraordinarily complex. There are no easy roads to the diagnosis of deafness. The diagnosis of deafness will depend as it always has on good history taking and thorough examination and good hearing tests.

Here, I confine my remarks on these other essentials of the diagnostic procedure to emphasize that the condition of the eustachian tube must be ascertained. Some have written that an eardrum which is approximately normal in appearance postulates a patent well-functioning tube. This is not so, as many of you have discovered for yourselves. In order to have good hearing the eustachian tubes must function normally. In order to ascertain its condition the nasopharynx must be thoroughly seen through the nasopharyngoscope and the patency of the tube ascertained by listening carefully to the sound produced on catheterization. There is a difference between a "tubal" sound and a "tympanic" sound. A common source of error is that of blowing air across the mouth of the tube instead of into the tube. This is a source of error which otologists are prone to deny until they stumble upon it accidentally when using a nasopharyngoscope.

And now we must proceed to the testing of the hearing. A simple fork is inexpensive and

does not go out of order. But the time-honoured method of striking it is a great source of error. For those of you who must use a tuning fork I advise that you provide yourselves with a good calibrated fork of 512 d.v., and have a McNally

Fig. 3. McNally activator.

activator made for it (Fig. 3).[6] Use it always in the same room under, as far as possible, the same conditions and in the same manner. The constant, careful use of this will provide you with records which you can rely upon. The addition of other forks is quite unnecessary—it only adds expense and confusion.

Audiometers on the other hand are intricate pieces of mechanism and require proper housing and every care the makers advise. Otherwise they will go out of order and give inaccurate results. What means do you take to make sure that your audiometer is in first-class condition?

The simplest and least pretentious of the audiometers is the 4A. This instrument does no more than in a general way gauge the capacity of the hearing function. It is not an instrument of precision and it can be operated by a layman. But it can be used to advantage by the otologist who is striving for diagnosis provided he use it with masking and in a sound-proofed room; for it is the instrument which at present most closely approximates ability to hear the human voice; it is the best means at our disposal to follow the ups and downs of a patient's useful hearing.

### Errors with the Audiometer

But don't imagine that this instrument can be easily used without error. Widely varying estimates of the state of hearing of school children of the same school but by different examiners are notorious proofs of this. Imperfect adjustment of the jack can be a great source of error. But the commonest error comes from maladjustment of the earpiece on the ear. How to overcome this, has been mentioned already. The use of this machine without masking is a further source of error.

Pitch-audiometer testing consists in the discovery of the exact point which represents the lowest audible intensity of each tone which the patient can hear. The determination of this exact point is a procedure of considerable difficulty. It requires good technique and certain qualities in the examiner.

The technique is important. The examiner must first decide whether he will approach the threshold from below or from above. Desirable as the approach from below may be it is accompanied by disadvantages which render it impracticable. The patient's attention is acutely directed to listening for an unknown sound. He is liable to make the error of signalling the perception of a click from the machine, or a hum from the machine or an accidental noise made by some movement of his own or of the audiometer, or some chance noise which penetrates the hearing room from outside. Or if he has a memory of the tone he is expected to hear he is liable not to signal that he hears it until he is sure that he does hear it; and that point will be found far from the actual threshold.

It is more practical to commence by letting the patient hear a strong intensity of the sound he is to listen for; an intensity that he is sure to hear. Then proceed from a lower but moderate intensity which the patient signals he can hear and gradually diminish the intensity until the patient ceases to press the signal button. The reading can then be indicated on the chart by a faint mark.

The same procedure is then followed for each of the remaining seven tones of the audiometer.

In this way a preliminary curve of the patient's tone appreciation can be charted.

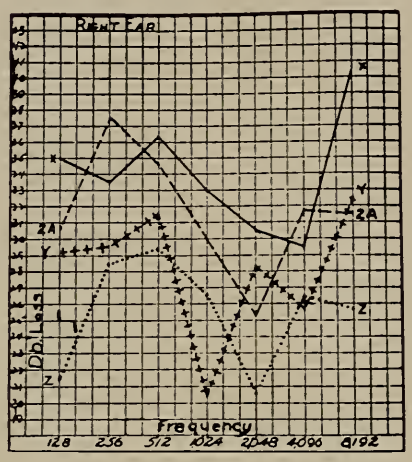
However, the points on this preliminary curve are probably inaccurate. Each of them should then be verified or corrected by a re-testing, approaching the threshold from below. This re-testing takes only a short time and at the end of it the examiner is reasonably certain of the accuracy of his measurements and these can then be marked indelibly on the chart and the points joined to produce a curved line which the eye can contrast with the heavy black "normal" line on the chart.

No audiometer is or at least will remain free from adventitious sounds. The click of the tone switch—the scraping of the tone-interrupter—the accidental rubbing of a connecting cord—are faint sounds to be sure, but each of you has known a patient to flash his signal in response to these. There is a humming noise from some well-known audiometers which is plainly perceptible in a sound-proof room. In some audiometers the higher intensities of the testing tones can be heard independently of the ear-piece. All these sources may result in the patient signalling responses which taken together produce a hearing curve which is not that of his actual hearing. The examiner must take great pains to catch such errors.

Do not think that audiometer testing for the purpose of accurate records can be entrusted to a nurse or technician of average ability. The examiner must have certain qualities, conscientiousness, interest, patience, reliability, thoroughness, keenness, discernment, ability to observe closely—and he must be critical of his own methods. Made by a person who is lazy, careless, indifferent or preoccupied the records will be useless.

But the examiner must also be competent and he will not be unless he has some acquaintance with the general principles of psychophysics.[7] For each of us is aware that it is "difficult in the case of a gradually decreasing humming sound to distinguish between a real fading sensation and a lingering memory image." The phenomenon must be watched for the patient continuing to press the signal button for a long time after the sound has been cut off—showing that there is an after-image of some sort. Sometimes the explanation will be that certain tones approximate the tone of the masking sound; sometimes that certain tones are approximating the patient's tinnitus. The phenomenon must be watched for the patient signalling that he hears the tone which the examiner purposely has omitted to make. The explanation may be that the patient

CHART II.




was anticipating the sound and imagined it was heard—or it may be that the patient is hearing an adventitious sound. In any case it would be a source of error. These phenomena must be noted when they occur and a decision made as to their cause. Some have suggested that notation be made of the state of the weather, for damp weather makes some patients' eustachian tubes act sluggishly.

The examiner must remember that he is completely dependent upon the response of the patient being examined; he must therefore note the quality of the patient's response and record it. Is the patient slow or quick to respond, keenly alert or inattentive, coöperative or obstructing, his mind on his task or preoccupied by something else? Discernment in the examiner is an essential.

Inattention to these matters must make the audiometer records quite untrustworthy in spite of the best instrument of precision. Make no mistake about this. A pitch-audiometer used in the ordinary office in an ordinary office building will only produce an approximation to the capacity of the hearing function of a patient. Such is useless for gauging the efficacy of any particular form of treatment.

It is a gross error to endeavor to state the percentage of actual hearing or of hearing loss that your patient has. It is an attempt at accuracy

regarding a complex phenomenon which the present state of our knowledge does not warrant. The percentage curves on certain audiometer charts are, therefore most pernicious. They are of no legal significance.

It is an error to think that your audiometric charts of a patient can be fairly co-related with those taken elsewhere with a different machine. The great dissimilarity of machines is well shown in Chart 2 from Hayden,[4] showing the hearing of sixteen persons as recorded by four different makes of audiometer. A mere glance is sufficient to show that the curves obtained are grossly different. Which was correct? Was any of them correct? There is a great need for standardization and calibration of audiometers. A specialist must have a good machine and must use good technique to have confidence that he can compare his own records with one another. The old tests were grossly unreliable—the new tests are very much more reliable, but they are still imperfect.

On the charts supplied by the makers of the three most used audiometers there is a curve to show the points at which there is complete loss of serviceable hearing. This curve may be a source of unintentional error. For it has been shown that total deafness for speech occurs for an average hearing loss of 85 decibels.[8] Therefore, a patient having in the important speech range a loss of 85 per cent (or having a hearing retention of only 15 per cent according to another) would be categorized wrongly unless he were regrouped as a 100 per cent disability for the hearing of speech.

Some of the old beliefs about the significance of certain pictures of deafness are being disproven. The old teaching was that loss of appreciation of the upper tones was invariably indicative of irreparable nerve deafness. This old belief is now known to be erroneous. Crowe and Burnam have shown that impaired hearing for high tones with good hearing for low tones is the earliest symptom of middle ear as well as inner ear deafness in children.[3]

To the practicing otologist the most important use of the methods of precision as supplied by the audiometers is the provision of records which show the progress up or down of a patient's deafness. Audiometer charts—even those imperfectly taken—impress a patient temporarily. But even patients can discern errors in method. Unless taken with meticulous care such a record means nothing to you, and the practitioner to whom a copy is sent also knows that it means nothing. But taken with every attempt to avoid the errors I have mentioned audiometer records will be a great source of satisfaction.

Stop looking for easy roads to the diagnosis of deafness.

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MSMS

# Some Obstetric Opinions*


By James R. McCord, M.D.
Atlanta, Georgia

James R. McCord, M.D.
*M.D., Jefferson Medical College, 1909; Professor of Obstetrics and Gynecology; Emory School of Medicine; Diplomate American Board of Obstetrics and Gynecology.*


■ If I were asked what is most needed generally to improve obstetric results I would be inclined to answer: more meticulous attention to details and a much greater degree of conservatism. The fundamental basis in good obstetric care is sound obstetric teaching in our medical schools. I wonder if we teachers of obstetrics are not emphasizing to our students abnormality at the expense of plain, everyday obstetric horse sense.

*From the Department of Obstetrics and Gynecology, Emory University School of Medicine.

Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 18, 1941.

There can be no substitute for a thorough knowledge of the mechanism of labor. I believe that this mechanism must be learned from women having babies. Manikin practice is helpful, but a poor substitute.

*Economic Situation.*—In any discussion of obstetric results the economic situation must be carefully considered. I am unable to see how there can be a sustained improvement in obstetric results without a parallel economic improvement. Nor have I ever been able to see how it is possible to aid the individual unless the individual first tries to aid herself. Indifference is undoubtedly a larger factor in poor obstetric results than is generally acknowledged.

In discussing obstetric problems in the United States cognizance must be taken of the enormous area and the many sectional differences. Some of these differences are climate, race, environment, nutrition, opportunity, education, and demand and supply. The practice of obstetrics in Minnesota and Wisconsin cannot be compared with that in Georgia and South Carolina.

**We teach students our obstetric adage: the poorer the environment in which we are working, the greater should be our conservatism. We are careful to stress the fact that this does not mean that a good environment is an excuse for radicalism.**

*Common Cold.*—There should be no correspondence courses and observational practice in antepartum care. There are many things that are routine and are to be done with every pregnant woman and many other procedures depend upon the individual patient. Good antepartum care is meticulous attention to details. I think it probable that the most frequent menace to pregnant women is the common cold. I venture the assertion that its importance is rarely mentioned when prenatal instructions are given. Prophylaxis should be stressed and proper treatment should be emphasized. The best of such antepartum care is not adequate if we have not the ability and will to follow through.

*Time Limits.*—Obstetric practice cannot be done on schedule. No arbitrary time limit can be put on any labor. As long as the mother's pulse is below a hundred, the uterus relaxing between pains, the fetal heart tones regular and rhythmic, indications for interference should be proven regardless of the length of time.

*Pituitary Extract.*—My opinion is that "contracted pelvis," "a long rigid cervix," "cervical dystocia" and "uterine inertia" are greatly overworked terms. It is hard for me to discuss pituitary extract and not be radical. There can be no question about the value of the drug. But I insist that it takes a large obstetric experience to use the drug sanely and safely and I believe that, on the whole, it does much more harm than good.

*Toxemia.*—True toxemia is a common obstetric complication. In so far as I know the best of antepartum care does not prevent true toxemia. Good antepartum care enables us to recognize an early toxemia. The end results usually depend upon rational treatment. It is my opinion that the best treatment for severe true toxemia is the induction of labor. Chronic vascular disease is not the rare result of a severe toxemia; one can almost say that it is the common result. The longer the toxemia hypertension is allowed to go, the greater is the chance of its permanency.

**One cannot even estimate the maternal lives that have been lost or wrecked in the interests of problematic babies. Eclampsia, "what sins are committed in thy name!" Regardless of the treatment used the keystone should be conservatism. If this conservatism is real, results are uniformly good and material mortality probably will not exceed 10 per cent. It is taking a long time for this knowledge to become generally known to the profession. I think there should be no exception to the rule: when convulsions are controlled, induce labor. Why tempt Providence the second time? Prematurity should not beget procrastination. The last cesarean section done in our clinic for true toxemia was twelve years ago.**

Greater effort must be made properly to classify the hypertensions of pregnancy. Chronic vascular disease and chronic nephritis are not obstetric diseases and as a cause of death unfairly increase maternal mortality. Parenthetically, it may be said that essential hypertension is a fairly common complication of pregnancy; chronic nephritis is relatively rare.

*Incomplete Abortion.*—I think "incomplete abortion" is an abused term in the obstetric vocabulary. The large majority of abortions will empty spontaneously if given the opportunity. The only interference that may be indicated is a tight vaginal pack. If properly done it usually controls hemorrhage. The involution of the uterus after abortion is relatively slower than after term labor. A longer stay in bed prevents hemorrhage from subinvolution and unnecessary curettages are avoided.

*Placenta Previa.* — Considerable experience with accidental separation of the normally situated placenta leads me to believe that cesarean section is rarely indicated in its treatment. Contrary to many opinions, I think that the more severe the separation, the greater should be the conservatism. Fetal mortality is high regardless of the severity. Conservative treatment indisputably offers a lower mortality. Vaginal bleeding and a tense, tender uterus usually establishes the diagnosis. Blood transfusion, the treatment of shock, rupture of the membranes, and a tight abdominal binder is the treatment of choice. In the occasional case tight vaginal tamponade is indicated. I have found that a Beck's abdominal binder is a most important piece of our obstetric equipment.

Some type of placenta previa is not a rare complication of pregnancy. There should be no expectant treatment. I quote Irving about the use of cesarean section:

"Cesarean section is indicated in complete and partial placenta previa when the child is alive, undeformed, and almost at term, but not otherwise, as a competent obstetrician may achieve delivery by Braxton Hick's version or the use of the Voorhee's bag with equal safety to the mother."

Lateral and low-lying previas can usually be safely managed by rupture of the membranes and a tight abdominal binder. The binder occasionally increases hemorrhage and, if not closely watched, will, now and then, kill the baby. Vaginal packing is probably never indicated and always a greater menace than a help. Transfusion of blood is the greatest adjunct. If blood cannot be immediately procured a six per cent solution of gum acacia in normal saline may be used. I believe that we have saved many lives by its use in our clinic. Many women with placenta previa die from postpartum hemorrhage. The uterus and vagina should be packed after delivery.

Bartholomew in a recent article on placenta previa and premature separation says: "As to treatment there is a very important fundamental difference between the two conditions. In premature separation of the placenta, on account of the frequently associated toxemia, the patient is either in shock or is continually on the verge of it. Any procedure involving trauma, such as cesarean section, internal version and extraction, difficult forceps delivery or manual dilatation of the cervix, is very apt to precipitate or aggravate shock. Statistics abundantly prove that the mortality rate rapidly increases with any of the above operative procedures, even though the patient may not have lost much blood. On the contrary, shock is not as much of a problem in placenta previa and if the patient has been transfused or is not too anemic, operative procedures are better tolerated."

*Puerperal Infections.*—Some of my ideas about puerperal infections are not orthodox. I believe many women are infected after delivery by careless procedures. I also believe that most severe puerperal infections are from someone's nose or throat. During labor wear a mask that covers nose and mouth. Insist that assistants do the same. The nurse should wear a mask when doing perineal dressings during the early puerperium. No report of blood or intrauterine cultures is complete unless the organisms have been grown anaërobically and aërobically. Perhaps it is the type of patient we see, but we find the colon bacillus almost as much of a menace as the hemolytic streptococcus. In the blood stream the colon bacillus is deadly. This is an additional reason for a careful perineal toilet during the puerperium.

The prevention of puerperal infections is of paramount importance because we are almost helpless in treating them. I have not found any curative therapy. The prognosis depends largely upon the virulency of the particular organism infecting the woman at the time, and her own resistance. We attempt to increase her resistance and we should be sure to do nothing to break it down. I have never given a uterine douche during the puerperium, nor have I ever curetted a puerperal uterus. Light curettage with a dull curet is a misnomer.

**Probably the majority of you will consider the following statement as born of ignorance or as a rank heresy: sulfanilamide or similar drugs have not been a life saver in our clinic. It is much better to attempt prevention than it is to depend upon sulfanilamide for a miraculous cure. We do blood transfusions frequently and usually with full amounts. This is imperative where doses of sulfanilamide are being used. Surgery is rarely indicated. It is a good rule after deciding surgery is necessary to wait for a few days. We prefer conservative treatment rather than surgery in puerperal peritonitis. I do not believe it possible to drain the peritoneal cavity in such cases.**

*Concomitant Disease.*—A safe rule to follow in the practice of obstetrics is: given a constitutional disease plus pregnancy—treat the disease and ignore the pregnancy. One year ago a former student wrote me a letter in which he stated how much he had profited from my conservative teaching. Within a few days another former student came into my office. He had just returned from a visit to the writer of the letter. The man who was profiting from my conservative teaching was proud of some recent work he had done. A woman at term with advanced pulmonary tuberculosis. He reasoned that labor would be bad for her. His treatment? Manual dilatation of the cervix, podalic version and extraction! The patient managed to get by, but I almost had apoplexy. There seems no field of medicine where shock is as generally disregarded as in obstetrics. Violent deliveries are bad enough but when exhaustion and shock are added, they are usually tragic.

*Occiput Posteriors.*—During some eighteen years of private practice I experienced many difficulties with occiput posterior positions. In many instances these difficulties were caused by the way in which the labor was managed. I kept my patients in bed when they should have been up and about. Sedation was started too early and given too often. Some one has said, "The ability to have a few hard bearing down pains at the start of the second stage of labor with posterior positions is often better than a later forceps operation, no matter how skillfully done."

I confess my inability accurately to predict when a particular head will pass through its pelvis. This, notwithstanding recent advances in the technique of pelvic measurements. A thorough test of labor usually solves the problem. It is probable that cesarean section, without a test of labor, is justified only rarely. Familiarity with the technically more difficult lower segment operation must be mastered if best results are to be obtained.

*Nutrition.*—Nutrition during pregnancy is not as great a problem with you gentlemen as it is with us. However, it is probably a larger problem with all of us than we realize. I must admit my rather meager knowledge of the subject. I believe there is a larger relationship between diet and some complications of pregnancy than is generally recognized. For practical purposes the subject is not difficult. In our clinic inability to balance diet is the result of the economic situation of our patients. I think there is much need for emphasizing common sense principles of diet as a part of our antepartum care. May I suggest that a variety of natural, properly selected foods meets all nutritional requirements? Artificial vitamins are a poor substitute and are expensive.

*Syphilis.*—My experience with the serologic tests for syphilis has been limited to the Wassermann and Kahn. When these tests are properly done they are as reliable in pregnancy as in the nonpregnant. Finding syphilis in early pregnancy with a proper follow through saves many heartaches. There is, in so far as I know, only one drug that prevents congenital syphilis. This is arsenic. Do not try to cure the disease in the mother. Be satisfied to protect the baby. Our clinic is trying to simplify this treatment. At present we are using only weekly injections of arsenic. These start at the time the diagnosis is made and are continued until labor. Neosalvarsan is used in 0.45 gm. doses and mapharsen in 0.05 gm. If the patient is not seen until the last trimester two doses weekly are given. The results have not been carefully analyzed but I feel sure they are as satisfactory as other methods. Syphilologists will not consider this an orthodox treatment. They recommend alternating courses of arsenic and bismuth, emphasis on the arsenic which should begin and end the courses. Adequate treatment will protect the baby in ninety to ninety-five per cent of the women, regardless of the activity of the disease.

*Heart Disease.*—There can be no question that heart disease as a complication of pregnancy is a treacherous disease. It is essential that evaluations be made on the basis of cardiac reserve rather than on a particular type of lesion. There is no doubt but that the great majority of pregnant women with heart disease, if properly managed and instructed, can be safely carried through pregnancy and normal labor with low forceps termination. In my opinion textbooks do not sufficiently stress the economic position of women. A regime relatively safe for a banker's wife might be dangerous for a woman who has to do the family washing. In general the same applies to tuberculosis as a complication of pregnancy. I think that prevalent opinion dictates that, in general, a reliable history of previous failure is a definite indication for interruption of pregnancy before the fifth month. This is best done by hysterotomy using local anesthesia. Drop ether carefully given is safe. Sterilization should always be done. Failure first developed during early pregnancy should be treated in the same way. It is usually possible to establish compensation and this should always be tried.

I agree with Hamilton and Irving that heart disease with or without failure during the second half of pregnancy is a medical and not a surgical condition. Such cases intelligently and conservatively managed show best results. I also agree that cesarean at or about term for sterilization is not a proper procedure. Sterilization can be done later with much less risk.

*Analgesia.*—Perhaps I am not competent to discuss analgesia during labor. Much of the furore has developed since I quit private practice. Nevertheless, the subject must be taught medical students and I must help do it. The keystone of our teaching along this line is to keep emphasizing a comfortable labor rather than a painless labor. It is the amount of analgesia given, not the kind, that is important. One of your Michigan men, Dr. Kamperman, has recently remarked on the subject very succinctly: "I think the middle of the road in analgesia is still the proper thing. Personally, I think we should train our patients not to expect a painless labor, We should not tell them we will meet them at the front door with an analgesia. They should expect to go through part of the labor before analgesia is given.

"In this way a minimum of analgesia is needed to relieve the patient. Most patients can cheerfully endure the early labor pains. If we delay giving analgesia until dilatation of the cervix has well started, then usually one dose will carry the patient through the remaining labor. The amount that is given is exceedingly important."

## Conclusion

In conclusion, I quote from a recent article of mine that was published in *The Journal of the Medical Association of Georgia:*

"I think that one should not accept responsibility for obstetrics and not follow through. Small fees should not beget careless work. Good prenatal care requires a small amount of time and, in the aggregate, but a small sum of money. It returns large dividends in life, health and satisfaction. It should provide the authoritative source of education for pregnant women. Quackery has for its keynote the ability of the particular cult to sell itself and its methods to its patients.

"We doctors are often too timid, reticent and I fear, at times, neglectful. A woman recently entered an Atlanta hospital in the last month of pregnancy with congestive heart failure. She had consulted a doctor several months before. He had asked a few questions, had not examined her and had given no detailed instructions. The doctor was an old student of mine. He was not taught that sort of obstetrics.

"I am a conservative, but if we are to keep the practice of medicine in the United States as it is now, there are some things we doctors must do. We must be more honestly aggressive, more of an educator of our individual patients, more coöperative with each other, and we must do the best job we can under the conditions in which we are working.

"In my humble opinion there is too much individual autocracy in the practice of medicine. There is not enough give and take, not enough resiliency. In obstetrics particularly, there seems to be too many radical decisions that are based upon relatively small personal experience.

"I have never found any way to make the practice of obstetrics easy. The way is long and hard. We should not undertake the work if we are not willing to accept the responsibility to the best of our ability."

MSMS

A bandage that can be contracted and stiffened to any desired degree for use in place of a cast, tourniquet, or elastic stocking, has just been patented. It is made of rubber strands which have been coated with a plastic. After the bandage has been wound about the part affected, the plastic can be hardened to the extent desired by treatment with chemicals. The patent specifically covers the process of coating the rubber strands, which previously had not been successful, the inventor states.—*Science News Letter*, September 26, 1942.

# Treatment of Parkinson's Disease

## A Comparison of Atropine Sulphate and the Wines of American and Bulgarian Belladonna*

By S. Stephen Bohn, M.D.
Detroit, Michigan

S. Stephen Bohn, M.D.

*M.D., University of Michigan Medical School, 1933. Doctor of Science in Neurology, Columbia University, N. Y., 1937. Diplomate, American Board of Psychiatry and Neurology. Member, Michigan Society of Neurology and Psychiatry; Association for Research in Nervous and Mental Disease; and Michigan State Medical Society. Instructor in Neurology and Psychiatry at Wayne University College of Medicine. Consultant in Neurology to the Lapeer State Home and Training School.*

As is so well known to every practitioner of medicine, the treatment of Parkinson's disease is extremely unsatisfactory. Many kinds of drugs have been used in the treatment of this disease and although some of them influence certain aspects of the illness the patient is seldom benefited to a great extent. Of these drugs the belladonna group has been of special interest.

Bremer[4] in 1925 was the first to note the unusual tolerance of patients with Parkinsonism for atropine sulphate and Anna Kleemann[6] in 1929 was the first to record its use in the treatment of thirty-seven such patients. This method was investigated in this country by Adams and Hays[1,2] The treatment consists in giving atropine sulphate 0.5 per cent solution orally starting with one drop (1.6 mg.) three times a day and increasing the dosage gradually until the limit of that patient's tolerance is reached. As soon as toxic symptoms develop the dosage is reduced until the maximal beneficial effect is obtained with the least toxicity. The average dose tolerated by such patients varies between ten to 18 drops three times a day. The effect of this medication was found to decrease the rigidity and tremor and to improve the gait, speech, oculogyric crises and the patient's general feeling of well being. In addition the sialorrhea so often found in patients with chronic encephalitis was also improved or eliminated (Finkelman and Shapiro[5]). The improvement of symptoms with this treatment was sometimes reported to be quite amazing. For instance, Adams and Hays[2] reported tremor to be practically abolished in 50 per cent, rigidity to be almost entirely removed in 35 per cent and oculogyric crises nearly all controlled in their thirty-five patients.

In 1926 Ivan Raeff, an apothecary in Chipka, Bulgaria, gained considerable fame for his treatment of the Parkinsonian syndrome with the wine of Bulgarian belladonna. Raeff made a decoction of the macerated root using white wine as a menstrum. It was suggested that the success of his treatment was due to the superior quality of the Bulgarian belladonna root (Neuwahl and Fenwick.[7]) Since that time, however, many investigators have compared the effects of the Bulgarian belladonna root with those from other countries; viz., Italy, Austria, France, England, Hungary, Germany and America and in each instance the belladonna roots from these countries were found to be equal to those from Bulgaria.

Although the patients are always given increasing doses of the drug until the limit of tolerance is reached and if toxic symptoms become too severe the dose is reduced until optimum effects are obtained, the success of the belladonna treatment has varied with different investigators. These investigators usually reported 50 to 75 per cent of their patients as being markedly to moderately improved but occasionally rather startling results have been stated such as the ability of previously bedridden patients to walk and the handwriting to change from an uncontrollable scrawl to complete legibility. It also has been the consensus of opinion that Parkinsonism due to encephalitis responds better to this treatment than that due to arteriosclerosis, probably because the former usually tolerate larger amounts of the belladonna preparations. The variation in results among the investigators may be due to the fact that the alkaloidal content of the wine of belladonna may vary considerably from sample to sample (Bailey[3]) and that the potency of this medication may occasionally deteriorate on standing.

Some investigators used the wine of belladonna while others used a dessicated extract of the wine of belladonna or a combination of alkaloids of the belladonna root (rabellon†). In this regard Price and Merritt[8] found little difference

*Gratitude is expressed to Dr. E. A. Sharp, director of the department of clinical investigation, Parke, Davis and Company, for his help in making this investigation possible.

†Rabellon is manufactured by Sharp and Dohme and contains the akaloids of U.S.P. belladonna in tablet form. Each tablet contains hyoscyamine 0.4507 mg.; atropine sulphate 0.0372 mg.; scopolamine hydrobromide 0.0119 mg.

among three preparations, viz., dessicated white wine extract of U.S.P. belladonna root, white wine extract of Bulgarian belladonna root and rabellon although the first was considered to be the best. They also found that the patients who improved had an average duration of symptoms about five years less than the unimproved cases. Finally, they listed the contraindications to belladonna therapy as follows: arteriosclerotic heart disease, angina pectoris, severe generalized arteriosclerosis, mental disturbance, chronic nephritis, glaucoma, malnutrition, general debility and dehydration.

### Method of Procedure

Since fair results had previously been obtained by the author in the treatment of Parkinsonism using atropine sulphate 0.5 per cent solution it was decided to compare the effect of this drug with the wines of American and Bulgarian belladonna. Through the courtesy of Parke, Davis and Company a supply of Bulgarian belladonna was obtained and prepared in 1939 for experimental use. Twenty pounds (9090 Gm.) of the Bulgarian belladonna root were ground as for percolation and then extracted by maceration and stirred for 24 hours at room temperature. The extracting medium was sherry wine of about 18 per cent alcohol content. The clear liquid extract was filtered off, pressure being used at the end to squeeze out as much of the liquid as possible. The root itself assayed 0.52 per cent of mydriatic alkaloids. The extract assayed 0.0332 per cent of mydriatic alkaloids and contained 18 per cent alcohol. At the same time an equal amount of the regular stock of belladonna root (American) was prepared in the same manner as the Bulgarian root. In this lot the drug itself assayed 0.67 per cent of mydriatic alkaloids; the extract 0.0424 per cent. The alcoholic content of this extract was 19 per cent.

An attempt was made to treat thirty cases of Parkinsonism with each of the three medications, atropine sulphate, the wine of American belladonna and the wine of Bulgarian belladonna. Nine of the thirty patients were treated in the Harper Hospital outpatient department; eight patients were treated at the Lapeer State Home and Training School; thirteen patients were treated in private practice. No attempt was made to restrict or add to the individual's ordinary dietary or smoking habits since it was felt that these patients should maintain their regular mode of living so far as food and tobacco were concerned. The patient's drug habits, however, were modified by discontinuing all previous treatment as well as eliminating the barbiturates since phenobarbital is known to aggravate the Parkinsonian rigidity (Ziskind and Ziskind[9]).

Of the thirty patients twenty-five were male and five female. The types of Parkinsonism were diagnosed as post-encephalitic (chronic encephalitis) in twenty, idiopathic or arteriosclerotic in eight and posttraumatic and syphilitic in one each. The average duration of symptoms could not be accurately determined in most cases.

### Treatment

The method of treatment attempted consisted in usually starting these patients on three drops (4.8 mg.) three times a day of 0.5 per cent atropine sulphate solution and increasing the dosage slowly until the maximum amount that could be tolerated with the most benefit and least toxicity was reached. They were kept on this drug for at least a month and then changed to the wine of American belladonna starting usually with one dram (1.3 mg. of total alkaloids) three times daily and then slowly increasing the dosage until the optimum dose was again reached. After being kept on this drug for a month the patients were changed to the wine of Bulgarian belladonna starting usually with the optimal dosage found previously for the American belladonna and increasing slowly as before. This was possible because it was soon found that the wine of Bulgarian belladonna was less toxic and a higher dose of the drug could be tolerated than the wine of American beladonna. The patients were kept on the Bulgarian belladonna for a month as with the other two drugs. After three months of such investigation the results of the three drugs were reviewed and the patients were continued on the drug which seemed to have been the most effective.

Four of the thirty patients refused to be treated for the necessary three months which was felt to be the minimum time allowable for a comparison of the effects of the three drugs. Several others refused to take one or two of the three drugs for the necessary month each. These patients were not included in the final results since only those who maintained their therapy for a month on each of the three drugs could be considered for further treatment. The total

length of treatment in these patients varied from four months to almost three years, the majority being treated more than a year.

### Results

The average optimal dose of the atropine sulphate solution in sixteen patients with chronic encephalitis was 18 drops (28.8 mg.) three times daily while in seven of the patients with idiopathic Parkinsonism it was only 14 drops (22.4 mg.) three times a day. On being transferred to the wine of American belladonna, fifteen patients with chronic encephalitis tolerated an average dose of three drams (5.09 mg.) three times a day while six of the idiopathic type averaged only two drams (3.39 mg.) three times a day. Seventeen of the chronic encephalitis cases were then found to tolerate an average dose of six and one-half drams (8.9 mg.) three times daily of the Bulgarian belladonna while five of the idiopathic type tolerated only an average of five and one-half drams (7.57 mg.) three times a day. The single patient with posttraumatic Parkinsonism tolerated 12 drops (19.2 mg.) three times a day of the atropine sulphate solution, two drams (3.39 mg.) three times a day of the American belladonna and 10 drams (13.3 mg.) three times a day of the Bulgarian belladonna. The patient with Parkinsonism due to syphilis tolerated 26 drops (41.6 mg.) three times a day of the atropine sulphate solution, seven and one-half drams (12.7 mg.) three times a day of the American belladonna and five and one-half drams (7.1 mg.) three times a day of the Bulgarian belladonna.

It will be noted that the patients with chronic encephalitis tolerated more of each of the three drugs than did the idiopathic or arteriosclerotic type and as a rule they exhibited greater improvement. This was in line with similar observations by other investigators and it was felt that the superior results obtained in patients with chronic encephalitis were due to their ability to take more of the belladonna preparations.

After these patients had been treated for the initial three-month period they were allowed to continue with their drug of choice and observations were made for a total period of from four months to almost three years. At the completion of their observation the most effective of the three drugs was noted. Among the twenty patients with chronic encephalitis, seven declared that the atropine sulphate had been of greatest benefit, six were undecided between atropine sulphate and Bulgarian belladonna, three were definitely in favor of Bulgarian belladonna, three were not treated long enough to allow an evaluation and one preferred the wine of American belladonna. Of the eight patients with idiopathic Parkinsonism, four favored the atropine sulphate, three were undecided whether any of the drugs were of benefit and one was not treated long enough. Although these were all subjective impressions it can be stated that objectively the clinical improvement went hand in hand with the patients' preferences.

It was apparent, therefore, that of the twenty-eight patients with Parkinsonism due to either encephalitis or arteriosclerosis, 11 (39.3 per cent) seemed to benefit most with atropine sulphate while six (21.4 per cent) thought the Bulgarian belladonna and atropine sulphate were equally beneficial. In only three (10.7 per cent) patients did the Bulgarian belladonna seem definitely to be the most effective and in only one (3.5 per cent) was the American belladonna the drug of choice. The results in the remaining seven (25 per cent) patients could not be determined.

Signs and symptoms of toxicity occurred in the use of all three drugs, were common to all three and were no different than those reported in the literature. The most common of these were blurring of vision due to pupillary dilatation, dryness of the mouth, urinary disturbance and decreased sweating. Less frequent toxic signs included nausea and vomiting, dysphagia, parched and purple lips, stiff tongue, pallor, rash, staggering gait, diplopia, headache, paresthesiæ, burning sensation in the stomach, poor appetite and loss in weight, a feeling of faintness, diarrhea, increased nervousness, restlessness and visual hallucinations with mental confusion.

The signs of improvement were subjective feelings of increased well being and decreased pains in the extremities along with objective evidence of decreased rigidity, salivation and involuntary movements as well as improvement in behaviour, speech, use of hands in carrying out skillful acts, facial expression and gait. They moved about faster and exhibited some increase in pep. The oiliness and acne of the face so common in chronic encephalitis was markedly improved in one case. As mentioned before, the patients with chronic encephalitis exhibited the most improvement and although the degree of

improvement was sufficient (sometimes most satisfactory) to warrant the continuation of this type of therapy, the remarkable improvement reported by some investigators was not observed.

### Summary and Conclusions

From this study involving a small series of patients it was apparent that the ordinary atropine sulphate 0.5 per cent solution was as good or better than the wine of Bulgarian belladonna in the treatment of Parkinson's disease and that the wine of American belladonna was the least effective. The signs of toxicity and signs of improvement corresponded with those previously reported in the literature. Of the two principal types of Parkinsonism, that due to encephalitis responded best to the various belladonna preparations.

It must be strongly emphasized, however, that the treatment of Parkinson's disease is truly an individual problem and that in any study of this sort one must take into consideration the type and severity of the disease, the type of medication, the variations in preparation, alkaloidal content and deterioration of the drugs used and a consideration of the contraindications. Changes in weather cause an alteration of dosage of these preparations since hot weather usually brings on toxic symptoms in a previously well-regulated patient. Other drugs such as benzedrine (amphetamine sulphate), hyoscine and stramonium influence certain phases of the Parkinsonian syndrome but they were not considered in this study. However, they should be used when indicated. Finally, one must not be too optimistic with any initial success in the treatment of these patients because quite often, for no apparent reason, they will develop toxic symptoms later, necessitating a reduction in the amount of drug which is usually followed by a recurrence or increased severity of symptoms. All of these observations indicate the complexities in the treatment of the Parkinsonian syndrome and one must experiment with various combinations of the drugs mentioned and then stand ready to change any combination and dosage as the occasion requires.

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## MSMS

### ETHER AS THE ANESTHETIC OF CHOICE IN PROLONGED OPERATIONS

On a certain occasion after I had removed the greater portion of the lower jaw as a sequestrum, walking back into the operation room after washing my hands I noticed a swelling under the chin which indicated that there was a pocket which required external drainage. The ether anesthetic had been stopped for some time so I had the attendants hold him firmly while I made a quick incision, expecting the patient to try to jump off the table, but he did not budge. I was greatly impressed with this fact but attached no particular importance to it until some years afterward when I had occasion to explore the right cerebral cortex, turning down an osteoplastic flap and opening the dura. I remember feeling that I wanted to be sure that this patient did not get too much anesthetic, so I instructed the anesthetist, who was giving drop ether on an open mask, to get the patient completely under surgically and then to stop the anesthetic until she heard further from me. I got busy with my operation and forgot all about the anesthetic and when I got through I found out that I had been working for over two hours and that the patient had received no more anesthesia after once being deeply anesthetized. I began to feel then that there must be something different about ether, and now and then instructed the anesthetist to stop the anesthetic sometime before the end of the operation. More recently, I have been making it a rule in operations that I expected to last for much more than an hour to have the anesthetic discontinued after giving it for 45 minutes or one hour. I found that we could work for at least another hour without difficulty. Still more recently, I cut the period of anesthesia after the operation was started to 20 minutes and later again to 15 minutes, and I found that we could still continue to operate for an hour or more after the anesthetic had been stopped. I further found that we could continue to operate while the patient recovered consciousness to the extent of being able to converse with the operator or the assistants during the operation.

The ether is administered on the open cone in the usual way, deep surgical anesthesia induced and maintained during the period of administration. In patients who object to ether, with or without their knowledge ethylene has been given till the patient becomes unconscious, then the ether started. The mask has in some instances been left on the patient's face, in others removed.—Joseph A. Danna, M.D., New Orleans *Medical and Surgical Journal,* September, 1942.

## We Will March With Our Soldiers

AS physicians, our duty to our country is clear. If ten millions of our youngest, strongest and healthiest men are to march against our enemies; if they are to fight in all parts of the world, they will not march or fight alone. For every thousand soldiers in our army, six or seven able-bodied well-trained physicians, equipped with the knowledge of modern medicine and armed with every means for maintaining health, combating sickness and attending the injured, will accompnay them. With an armamentarium for modern surgery: plasma and blood to combat shock; sera, vaccines, sulfonamides and other useful drugs to prevent infections, the salvage of human life will be the greatest recorded in history. Every red blooded American physician will want to play his part in this conflict.

Civilian life with its numerous activities must go on. For every man at the front many must remain at home to maintain our services, to supply the instruments of war and to protect our home front. All young physically fit physicians are needed for the military services and the older doctors of medicine who were planning on retirement, or slackening their medical activities, must take on an additional load of civilian practice. Many must discard their vacations, hobbies and those periods of well-deserved leisure which they have formerly enjoyed.

Today our civilization is in great peril. As in the past, the medical profession is prepared to give its full strength to the winning of the war. A long tradition of unselfish service to mankind is inherent in our profession. We will serve our country. We will march with our soldiers; we will bring every available means of healing and comfort to our fighting forces; we will conserve life and health; we will free our people of the fear of sickness and injury and from any lack of adequate medical care.

*Howard H. Cummings*

President, Michigan State Medical Society

*President's*

*Page*

# EDITORIAL

## THE EDITOR

■ Major Roy Herbert Holmes has reported to Fort Hulen, Texas, for Army service. He has been editor of THE JOURNAL of the Michigan State Medical Society for three years, and these have been busy ones. We shall all miss him, but wish him godspeed and the satisfaction of a well-done job even though it be exacting and irksome.

We all know how efficient and creditable Major Holmes was as Editor and Councilor, and know he will prove just as good an Army officer.

For the second time War has called the editor of this JOURNAL into the service of the Army. It was Editor Warnshuis in 1918-19 and now Editor Holmes. The mantle now falls temporarily upon the chairman of the Publication Committee.

## INTERNS AND BASIC SCIENCE

■ Some months ago the Michigan State Board of Examiners in Basic Science notified the Attorney General, "This Board has found that certain individuals are interning in various institutions in the state without obtaining certificates" *from the Basic Science Board* (Ed.), and asked his opinion as to "whether interning constitutes practicing the art of healing within the meaning of the above statutory provision," *Section 8 of the Basic Science Act, being Act No. 59, Public Acts of 1937.* (Ed.)

The Attorney General on July 13, 1942, gave the opinion that "interning does not constitute practicing the art of healing within the meaning of the Basic Science Act."

In the opinion it is stated that: "It is apparent that if those serving internship were held to be practicing healing in violation of the Basic Science Act, they would also of necessity be practicing medicine * * * in violation of the statute regulating those professions. On the other hand these same statutes and the regulations issued in pursuance thereof compel internship as a condition precedent to licensure."

## UNITED STATES PUBLIC HEALTH SERVICE

■ Several questions have been asked THE JOURNAL as to the relationship of the USPHS to the armed forces during the war and to the practicing physician. *The Journal of the AMA,* August 15, 1942, contains a comprehensive statement by Surgeon General Parran on, "Medical Offices in Public Health Service."

It should be emphasized that physicians in general practice as well as specialists are eligible for examinations for appointment in the commissioned corps of the Public Health Service. The ranks and pay of this commissioned medical corps are similar to those in the Army and Navy medical corps. The base pay and title of each grade is as follows: Assistant Surgeon $2,000; Passed Assistant Surgeon $2,400; Surgeon $3,000; Sr. Surgeon $3,500; Medical Director $4,000; together with additional compensation for subsistence and housing.

## MASSACHUSETTS MEDICAL SERVICE

■ As an answer to the threat of socialized medicine a plan for medical service has been inaugurated by the Massachusetts Medical Society to go into effect early this fall. It is designed to care for ninety-two per cent of the state's wage-earning families. In a supplement to *The New England Journal of Medicine* it is stated, "Massachusetts * * * has been saved a trying and costly experience by the trial and error methods in operation in other parts of the country. Michigan, for example, started with a complete medical care contract, but experienced such financial difficulties and paid doctors so inadequately that it is starting afresh with a partial coverage contract and planning to build again later to complete coverage. * * * The probable popularity of the plan was indicated by the fact that 250,000 Michigan families have availed themselves of the new and sound contract for partial coverage."

## RED CROSS BLOOD PROCUREMENT PROJECT

■ Expansion of the Red Cross blood procurement project from an original 900,000 donors during the current fiscal year to a minimum of 2,500,000 has been requested by the Surgeons

General of the Army and Navy, the Red Cross has announced. Blood collected in this project is processed for use in transfusions by the armed forces.

This almost threefold increase will require approximately 50,000 volunteer donations a week. The eighteen blood donor centers operated by Red Cross chapters in the more populous areas of the country are rapidly completing plans to increase their quotas, and a few additional centers will be opened to handle this augmented number of donations. In addition to dried plasma, blood collected is to be processed into human serum albumin, also for use in transfusions. The Navy is particularly interested in this serum because it requires less storage space than plasma.

Unlike dried plasma, serum albumin, when prepared for shipment, is in solution. Nothing need be added before the transfusion is given. A unit of the serum consists of 25 grams of albumin dissolved in 100 c.c. of physiological salt solution.

In announcing the expanded program, the Red Cross explained that until now it has had to restrict quotas of the donor centers because of the limited capacities of processing laboratories. However, several additional laboratories are expected to be participating in the program in the near future, and the capacity of those already processing blood is being expanded. The combined annual capacity of processors is expected soon to reach a total of at least 2,500,000 pints of blood, and may even go as high as 3,000,000, Red Cross officials stated. The eighteen donor centers participating in the national blood procurement project are operated by Red Cross chapters in New York, Philadelphia, Baltimore, Rochester, Buffalo, Boston, Brooklyn, Cincinnati, Cleveland, Chicago, Detroit, Pittsburgh, Indianapolis, St. Louis, Milwaukee, Los Angeles, San Francisco, and Washington, D. C.

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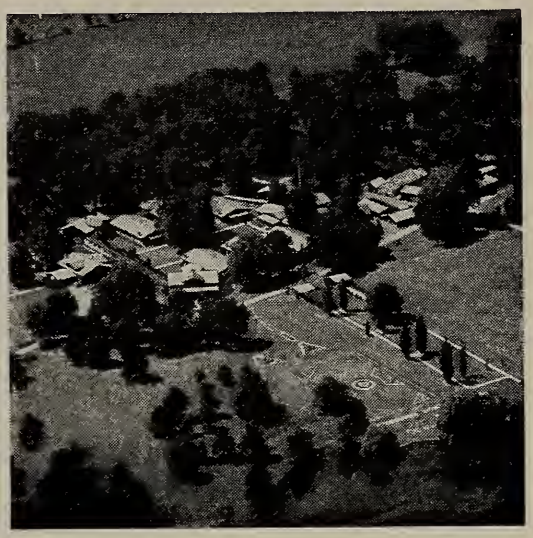
**COMPARISON**

▪ Appropriately this month in our Half Century Ago department we copy a paper by Dr. J. H. Carstens, father of our retiring president, published fifty years ago. What list of fifty-three abdominal operations, today, by any surgeon would list one appendectomy?

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## THANKS

The Council of the Michigan State Medical Society has placed on its minutes a vote of thanks to all who contributed to the success of the State Society's 1942 Annual Meeting—the Postgraduate Conference on War Medicine.

The Council is grateful to the sixty-two Guest Essayists, the Ubiquitous Hosts of our out-of-Michigan speakers, the Chairmen and Secretaries of the General Assemblies and of the Sections, the Discussion Conference Leaders, the Monitors of the Sections and of the Discussion Conferences, the Press Relations Committee, the Hospitality Committee, the Grand Rapids Arrangements Committee, the Exhibitors, the newspapers for many valuable columns, the Grand Rapids Convention Bureau, our friends who sponsored lectures at the meeting, the Kent County Medical Society, and all who by their help and generous sacrifice of time made the meeting such an instructive and enjoyable conference.

## "AMERICA IS PROUD—"

The press of the nation is unanimous in its praise of the medical profession's patriotism and its war work. Every week, additional newspaper editorials, commending the work of doctors of medicine in the armed forces and in civilian medical defense are being written. Typical of the words of wide-awake editors is the following extract from a long, eulogistic editorial in the Flint JOURNAL of August 23:

"America is proud of the work its medical services are performing on the field of battle, proud of the fact that scientific and technical advance has been made in the business of saving men's lives, building up their bodies in the face of the evil inventions that destroy. Had not medicine, nursing, pharmacy, sanitation kept pace, or more than kept pace, with the destructive arts, the situation in a world totally at war would be almost past comprehension.***

"Our medical profession and services connected with it are meeting the test—probably the greatest test of skill, stamina and courage in the history of medicine. And the men in the medical corps, from the buck private to the high ranking officer, are soldiers in the true sense of the word, for they face much the same danger as the fighting men in action."

## MEMBERSHIP FIGURES UP

The membership of the Michigan State Medical Society, as of September 19, 1942, stood at 4,570, the greatest total in the history of the Society for that date.

The record for the past seven years stands as follows:

| | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 | 1935 |
|---|---|---|---|---|---|---|---|
| 7/31 | 4,403 | 4,401 | 4,255 | 3,958 | 3,757 | 3,457 | 3,410 |
| 12/31 | 4,621 | 4,527 | 4,425 | 4,205 | 3,963 | 3,725 | 3,653 |

## WILL HEALTH OFFICERS PRACTICE MEDICINE?

The suggestion that rural health officers "help out during the war emergency" by practicing curative medicine (while continuing to serve as health officers) in those areas where medical enlistments in the Army and Navy are throwing double burdens on the remaining practitioners, was presented to The MSMS Council recently. Hundreds of patriotic doctors in this state have enlisted in the armed forces. Has the government suddenly discovered that these "inconsiderate" physicians have left a helpless clientele of sufferers without adequate medical service, which condition must be corrected by its rushing to Michigan scores of practitioners who are paid by the government? Will the medical profession, thanks to its patriotism, be accused of "falling down on the job"? Will official rules, called "emergency medical measures," support the new order so that the medical soldier returning to his practice will find that he must serve his people by taking a governmental job, or else?

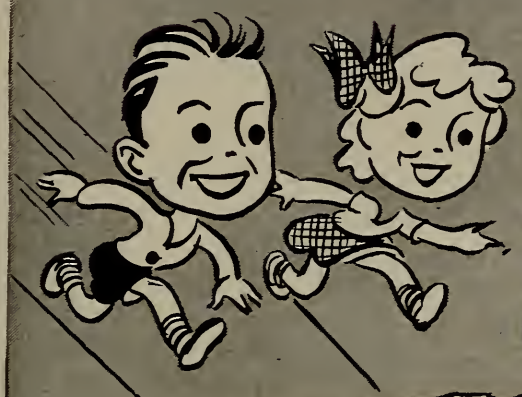
Can this be the entering wedge of governmental practice of medicine?

## CIVILIAN OFFICES OF MEDICAL SOLDIERS

The Soldiers' and Sailors' Civil Relief Act contains no provision that undertakes to give assurance to a physician who enters military service

*(Continued on Page 881)*

# IN OTHER WORDS—APPLES ARE



# GOOD TO EAT

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"What plumpness of shape! What richness of tints! What deliciousness of breath! How much has it improved on its own blossomage! How far superior to the rose!"

Today, we praise apples in much plainer language. We know more about their health-giving, nutritive value. We realize that they are not only good to eat . . . but good for us. A valuable source of calories, apples contain Vitamins A, B, C and G, as well as much needed minerals . . . calcium, phosphorous, iron, magnesium. They furnish pectin, non-irritating bulk. They are easily served in a wide variety of ways, both raw and cooked, and should be an important part of every person's diet.

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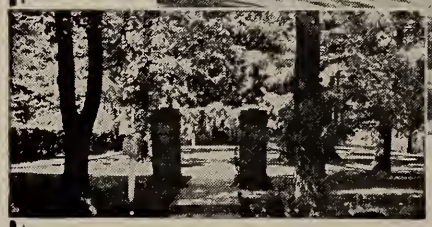

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Sanitarium Hotel Accommodations

*(Continued from Page 878)*

that his office location will be available when he returns to civil life. Of course, if the physician pays his office rent during his absence, he will be assured of the same location after his discharge. Otherwise, unless the physician makes some special arrangement with the building company, or procures some other doctor of medicine to occupy the office space under an agreement to relinquish it at the termination of the military service of the first physician, no way exists that a physician going into military service may have any assurance that, when he returns, he will be able to obtain the same space for office purposes that he occupied prior to entering military service.

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**PSYCHIATRIC SERVICE**

"The possible service of psychiatry to the processes of criminal law is far greater than that of a mere determination of what the law chooses to denominate 'insanity.' It seems inevitable that as time goes on the use of court clinics and psychiatric services in penal and correctional institutions will increase."—Winfred Overholser, Psychiatric Expert Testimony, *The American Journal of Medical Jurisprudence,* February, 1939.


***All worth while laboratory examinations; including—***

Tissue Diagnosis

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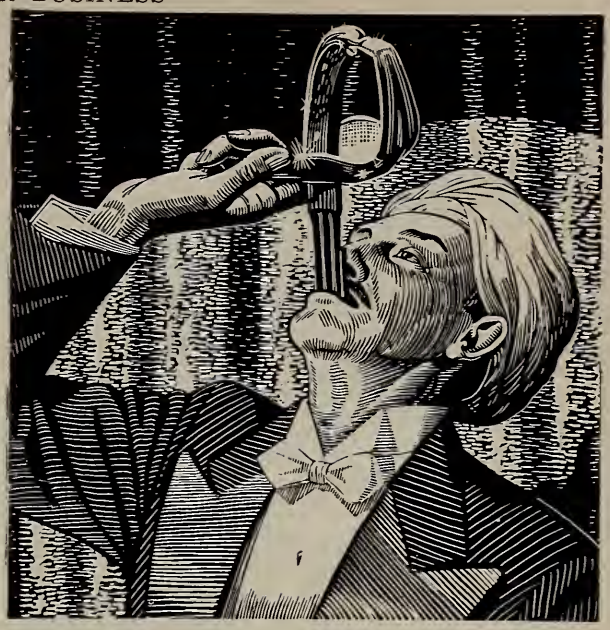
The pathologist in direction is recognized by the Council on Medical Education and Hospitals of the A. M. A.





**PICTURE OF A PATIENT WITH *Pharyngitis***

**When your patients with pharyngitis, tonsillitis or aphthae complain of feeling as if they had swallowed a sword, NUPORALS, "Ciba," offer quick relief. Containing the well-known anesthetic, Nupercaine* (*a* — butyloxychinchoninic acid diethylethylenediamide hydrochloride), these lozenges produce a prolonged local anesthesia of the mucous membranes of the oral cavity and throat when dissolved in the mouth.**

**Further suggested uses for NUPORALS* include facilitating pharyngeal and laryngeal examinations, easing the passage of a stomach tube, curtailing pain induced by denture irritation or surgical trauma.**

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*Trade Mark Reg. U. S. Pat. Off. The word "Nuporals" identifies throat lozenges of Ciba's manufacture, each lozenge contains one mgm. of Nupercaine, "Ciba."

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CIBA

### Succinyl Sulfathiazole Helps Curb Dysentery

A new sulfa drug, succinyl sulfathiazole, was used successfully in treating dysentery during an outbreak in Eloise hospital and infirmary recently. Five deaths occurred among seventy-two cases. Two kitchen employes, a food handler and a dishwasher, were discovered to be carriers. Treatment of the patients was under the direction of Dr. Charley J. Smyth, medical director of the William J. Seymour hospital, a division of Eloise.

The mobile laboratory of the Michigan Department of Health was used in examining stools of 328 food handlers. Dr. T. M. Koppa, director of the Department's bureau of epidemiology, Dr. F. S. Leeder, Department epidemiologist, and Dr. T. K. Gruber, medical superintendent of Eloise, collaborated in bringing the outbreak under control.

### New All-Time Twelve-Month Typhoid Low in Sight

Known "typhoid carriers" in Michigan now total 275, the Michigan Department of Health having added twenty-one to the list this year. Unceasing efforts of the Department's bureau of epidemiology to identify all carriers is credited in large measure for the steady decline in typhoid cases in recent years. Four cases of typhoid reported for Michigan during the first eleven days of September contrasts with the seven-year median of sixteen for the period and unless a typhoid outbreak occurs in the closing days of September a new all-time twelve-month low may be recorded in 1942. Forty-five cases were reported through September 11, this year.

### Polio Incidence So Far This Year Low in State

Michigan's infantile paralysis incidence to date this year (ninety-four cases through September 11) is low. August, September and October are the three months when most cases are likely to develop, on the basis of records of other years kept by the Michigan Department of Health. In August, this year, forty-four cases were reported. Sixty cases were reported in August, 1941, and the seven-year median for the month is 102. Seventeen cases developing during the first eleven days of September, this year, compare favorably with the seven-year mean of seventy-six for the corresponding period.

Fact that cases reported so far are considerably below expectancy for this time of year should not encourage over-optimism, the Department warns. Several weeks of the "danger period" remain and an outbreak of the disease can change the picture. The Department, through newspapers, is advising the public that a physician should be called immediately when slight fever, nausea and vomiting occur. Stiffness or pain in the back and neck and muscle soreness may be other symptoms, the public is advised, and the Department adds that possibility of paralysis is greatly lessened when there is prompt diagnosis and adequate treatment.

Seventy-seven respirators located in twenty-eight Michigan counties now are available to physicians.

### Health Science Groups Urge Tests for Youths

Intensive check-ups of physical condition of older boys in Michigan's secondary schools with the beginning of the fall term are recommended by health science groups of the state. Percentages of under-par youths disclosed in NYA and Selective Service examinations have aroused concern and the bureau of local health services of the Michigan Department of Health is acting as coördinating agency with full-time district and county health departments in working out details of examinations in areas served by the last-named groups.

### Ventilation of Kitchens Adequate Bomb Safeguard

Advice to householders concerning precautions to be taken against escape of refrigerating gases in event of bomb damage, released by the Michigan Department of Health, is that opening of kitchen windows and closing of kitchen doors in air attacks is sufficient. It is pointed out that only a direct hit by a bomb on the refrigerating unit itself would be likely to release the refrigerant in a confined space with possibility that the gas would affect humans and that the suggested precaution should be sufficient safeguard.

### Workers Are Protected Against Radium Effects

Safeguards for workers who apply radioactive luminous compounds to instrument dials in Michigan plants holding war contracts are prescribed by the bureau of industrial hygiene of the Michigan Department of Health. The bureau demands preëmployment and periodic medical examinations and education of workers in safe methods of handling the compound, insistence on thorough scrubbing of hands before food is touched, performance of the dial-painting work under glass-windowed hoods from which air is pulled

by suction and safe disposal of emptied containers. Reserve supplies of compound must be stored in lead-lined cabinets away from workers and only small quantities are issued to operators at a time. Workers are not permitted to touch brushes to lips to fashion "points" for the application of the compound.

Safe methods of handling the compound, prescribed by industrial hygiene engineers, have been worked out by the National Bureau of Standards of the U. S. Department of Commerce and by the U. S. Radium Corporation. Radium poisoning claimed lives of many workers during and after the last World War.

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### Administration Building is Inspected by Public

Several hundred visitors from all sections of Michigan, including many physicians and health officers, inspected the new administration building of the Michigan Department of Health when open house was held Thursday, September 10. The new building on Dewitt road, opposite the state laboratories on the northwest edge of Lansing, provides space for all bureaus of the Department except laboratory offices which remain in their present location. The structure cost $135,000 of state money plus a $93,000 WPA contribution of labor and materials. Among visitors during the informal opening was Abner E. Larned of Detroit, state WPA administrator.

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The 1942 Clinical Congress of the American College of Surgeons, originally scheduled for October at the Stevens Hotel, Chicago, which was taken over August 1 by the United States Army Air Corps, will be held in Cleveland, with headquarters at the Cleveland Public Auditorium, from November 17 to 20, according to an announcement from the College headquarters in Chicago.

## IN MEMORIAM

**O. S. Armstrong** of Detroit was born in 1851 and was graduated from the University of Michigan in 1877. After graduation he came to Detroit and established himself in practice where from 1877 until his retirement in 1941, he was in uninterrupted practice. He was President of the Wayne County Medical Society in 1892 and 1893 and during the period of 1888-1894 was professor of anatomy and diseases of women at the Michigan College of Medicine. Doctor Armstrong until his retirement was the oldest practicing physician in Michigan and the oldest living past-president of Wayne County Medical Society. He would have been 91 years old on August 30. Dr. Armstrong was elected to Emeritus membership in the Michigan State Medical Society in 1937. He died August 13, 1942.

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The Drake . . . on the shores of beautiful Lake Michigan . . . offers every most desired convenience to the visitor in Chicago. It's close to everything of most general interest . . . shopping centers, theatres, movies, smart night clubs, ball parks, exhibition centers, and sport and convention stadiums. Fast transportation to all parts of Chicago and suburbs. Splendid guest accommodations. Quiet, congenial surroundings. Excellent food and refreshments. Superb entertainment and dancing in the Drake's exotic Camellia House. Away from the noise and congestion of the Chicago Loop —yet, only 5 minutes from Downtown.

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**Don M. Campbell** of Detroit was born in 1865 in Wardsville, Ontario, and was graduated from the Detroit College of Medicine and Surgery in 1885. He also studied at Trinity Medical College in Toronto, the Royal College of Surgeons and the Royal College of Physicians at Edinburgh. He did postgraudate work in the eye, ear and throat hospitals of London, Glasgow and New York. During World War I he examined over 5,000 American soldiers. He was on the staff of Harper Hospital until his death and formerly served as a professor of ophthalmology and otology at the Detroit College of Medicine and Surgery. He was a past-president of the Wayne County Medical Society and belonged to several national medical organizations. Doctor Campbell was elected to Emeritus membership in the Michigan State Medical Society in 1939. He died August 25, 1942.

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**W. C. Conley** of Ironwood was born near Plymouth, Ohio, January 16, 1867, and was graduated from the University of Michigan in 1890. After practicing at Saranac he went to Ishpeming in 1897 to become assistant surgeon at the Union hospital. When he came to Ironwood in 1904 he was employed by the M. A. Hanna Company, and later he became the physician for the Republic Steel Corporation, retiring in 1936. He died July 5, 1942.

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**Conrad DeJong** of Grand Rapids was born in Orange City, Iowa, in 1871, and was graduated from the University of Iowa, College of Medicine. He first located in Iowa City and came to Grand Rapids in 1915, practicing there until his retirement in 1938. While in practice, he had been on the staff of Blodgett Memorial, Butterworth, and St. Mary's Hospitals and the Holland U.B.A. Home. He was an Honorary Member of the Kent County Medical Society. Doctor Conrad died on June 13, 1942.

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**Edward Geddus Minor** of Detroit was born in Chicago, Illinois, in 1888, and was graduated from the Detroit College of Medicine in 1912. Shortly after graduation, Doctor Minor began his x-ray work in the medical department of the Ford Motor Company. He was director of the x-ray department at Highland Park General Hospital since the institution was opened in 1921. He was a member of the Radiological Society of North America as well as many other local organizations. He died September 9, 1942.

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**E. D. Rice** of Flint was born at Woodstock, Ontario, in 1872, and was graduated from the Detroit College of Medicine in 1894. He came to Flint after graduation and in 1900 opened the Rice Hospital. Doctor Rice practiced in Flint until his death on August 21, 1942.



*Say you saw it in the Journal of the Michigan State Medical Society*

# ✶ COUNTY AND PERSONAL ACTIVITIES ✶

*"Amputations in War"* by Colonel N. T. Kirk, M.C., Battle Creek, appeared in *The Journal of the American Medical Association* of Sept. 5, 1942.

* * *

*Alexander M. Campbell, M.D.,* Field Representative for the MSMS Maternal Health Committee, presented an illustrated address on the "Toxemias of Pregnancy" before the Lenawee County Medical Society on September 17.

* * *

*H. A. Hume, M.D.,* of Owosso, was elected President of the Shiawassee County Medical Society in September, to succeed E. R. McKnight, M.D., now in the armed forces. E. J. Carney, M.D., of Durand was elected Vice President to succeed J. S. Janci, M.D., who is also in service.

* * *

*L. W. Shaffer, M.D.,* Detroit, acted as Leader for the Discussion Conference on Syphilology at the MSMS Annual Meeting, Wednesday, September 23 in place of Udo J. Wile, M.D., of Ann Arbor, who left for service in the USPHS on that date.

*"Poliomyelitis Following Tonsilectomy"* by Thomas Francis, Jr., M.D., and W. N. Mack, M.S. of Ann Arbor in coöperation with John A. Toomey, M.D. of Cleveland and Carl E. Krill, M.D. of Akron, Ohio, appeared in *The Journal of the American Medical Association* of August 22.

* * *

*"During the War, Think Twice Before You Phone the Doctor"* is the title of a placard being disseminated by Meade Johnson and Company.

This clever card, if followed by the people, will save physicians many hours of valuable time. The card ends with the admonition: "There's a Shortage of Doctors."

* * *

*State Commissioner of Health H. Allen Moyer* requested that the following important announcement be published:

Physicians leaving for Service: please sign your birth certificates before you depart, to save embarassment to the child, its parents, and to yourself.


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● A doctor just doesn't happen to cure a patient. Study, symptoms, reactions, knowledge and experience guide his diagnosis and treatment. Neither does a fine lens just happen to be made. It is something carefully planned and skillfully worked for. The precision features of the K Ultex Onepiece Bifocal didn't occur by chance. They were painstakingly developed —the results of years of work, experimentation and testing. So when you specify K Ultex, you can rest safely assured that prescriptions will be faithfully and accurately reproduced, and that patients will have the maximum of eye comfort and the fullest measure of visual efficiency.

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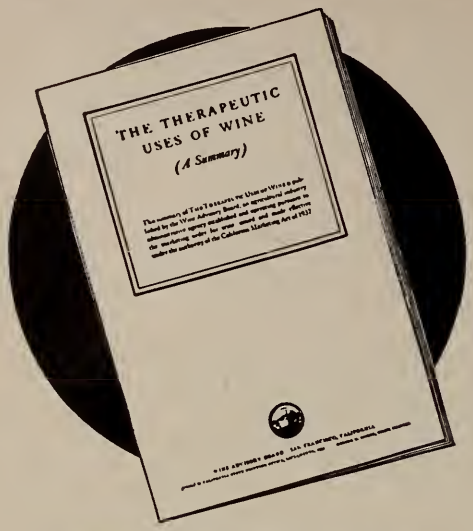


*Published by the Wine Advisory Board*

# THE THERAPEUTIC USES OF WINE

*(mailed free upon request)*

There has developed an interest within the medical profession that the true physiologic and therapeutic uses and deficiencies (and also the food values) of wine be authoritatively reviewed. Such a review has been prepared in monograph form by qualified and competent medical authorities and constitutes a summary of the pertinent scientific literature of present-day medicine.

The contents include sections on wine as a food, and the actions of wine on the gastro-intestinal system, the cardio-vascular system, the genito-urinary system, the nervous system and the muscles, and the respiratory system. The uses of wine in diabetes mellitus, in acute infectious diseases and in treatment of the aged and convalescent are also discussed. The value of wine as a vehicle for medication is dealt with, and an important section on the contraindications to the use of wine is included. An extensive bibliography is presented for those who may wish to pursue the subject further.

This review results from a study supported by the Wine Advisory Board, an agricultural industry administrative agency established under the California Marketing Act, and has been sponsored by the Society of Medical Friends of Wine.

Members of the medical profession are invited to write for this monograph. Requests should be made to the Wine Advisory Board, 85 Second Street, San Francisco.

*Lt. Colonel Harold A. Furlong, M.C.,* Director of Selective Service and also Administrator of the Michigan Council of Defense, addressed the Health Committee of the Fremont Chamber of Commerce on September 28. His subject was "Health in the War and Civilian Defense Efforts."

* * *

*The USPHS* has completed a set of nine posters in a series designed to keep vital war workers at their machines through the observance of simple health safeguards. Copies of these industrial hygiene posters are available by writing E. R. Coffey, M.D., Asst. Surgeon General, Division of Sanitary Reports and Statistics, USPHS, Washington, D. C.

* * *

*Walter L. Baumann, M.D.* of Detroit completed the formal continuation work arranged by the MSMS Committee on Postgraduate Medical Education, and became eligible for Certificate of Associate Fellowship in Postgraduate Medical Education. Dr. Baumann's name was omitted from the list of Associate Fellows published in the September JOURNAL.

* * *

*Open House* at the new Michigan Department of Health Administration Building was held Thursday, September 10. During the hours from 2 to 9 p.m., hundreds of physicians and interested civilians inspected the new building and congratulated Commissioner Moyer and his staff on their new headquarters, located on DeWitt Road (Telephone: Lansing 4-1491).

* * *

*The National Foundation for Infantile Paralysis* is sincerely thanked for its sponsorship of the lecture "Survey of the Progress Against Poliomyelitis" presented by Don W. Gudakunst, M.D. of New York, before the Section on Pediatrics at the 77th Annual Meeting of the Michigan State Medical Society in Grand Rapids, September 25.

* * *

*L. Fernald Foster, M.D.,* Secretary of the Michigan State Medical Society, spoke to the Grand Rapids Kiwanis Club on September 21, on the occasion of the MSMS Annual Meeting. His subject was "Medicine's Effort in the War."

*A. C. Furstenberg, M.D.,* Ann Arbor, spoke to the Optimists' Club on Wednesday, September 23 on "Medical Education in Time of War."

*Major C. I. Owen, M.C.,* Assistant Director of Selective Service in Michigan, spoke to the Grand Rapids Breakfast Club on September 23 on "The Rôle of Medicine in War and Civilian Defense."

* * *

*"Lack of Time,"* the recent advertisement by Parke, Davis & Company published in all national magazines, has been quoted all over the country. *The Lapeer County Press* reprinted it in an editorial on August 12, entitled "An Editorial from an Advertisement."



*Say you saw it in the Journal of the Michigan State Medical Society*

The physicians of Lapeer County had reprints made of *The Lapeer County Press* editorial, and disseminated them to patients, in their waiting rooms and with their monthly statements. A timely quote from the Parke, Davis advertisement: "The best way help on the home front can be maintained during the war is for you and your Doctor to work together as a team."

* * *

**COUNTY MEDICAL SOCIETY MEETINGS**

Calhoun—Battle Creek, Tuesday, September 1, 1942, Speaker: George W. Schelm, M.D.

Battle Creek, Subject: "Surgical Pathology of the Ovary."

Dickinson-Iron—Iron Mountain, Thursday, September 10, 1942, Program consisting of colored movie on Thiamine Chloride Deficiency.

Genesee—Flint, Tuesday, September 15, 1942, Business meeting.

Hillsdale—Hillsdale, Tuesday, August 4, 1942, Business meeting.

Ingham—Lansing, Tuesday, September 15, 1942, Business meeting.

Muskegon—Muskegon, Friday, September 18, 1942. Business meeting.

## *Reading Notices*

### DR. HAROLD L. HANSEN JOINS WINTHROP CHEMICAL COMPANY

Dr. Harold L. Hansen, former secretary of the Council on Dental Therapeutics of the American Dental Association, director of the A.D.A. Bureau of Chemistry, and consultant to the Federal Food and Drug Administration, the Federal Trade Commission and the Council on Pharmacy and Chemistry, has been appointed administrative assistant to the president of Winthrop Chemical Company, according to an announcement by Dr. Theodore G. Klumpp, President. Dr. Hansen takes up his new duties immediately.

### THE IMPORTANCE OF SPECIFICATION

Some physicians think it is commercial to specify a maker's name.

On the other hand, a physician of international reputation and unimpeachable standing has expressed himself as follows:

"I invariably specify Mead's whenever I can, because I feel that when I don't specify a definite brand, the effect may be the same as though I were to specify that any brand would do.

"By not specifying, I let down the bars to a host of houses, many entirely unknown to me and others deserving no support at my hands.

"When I specify Mead's I may be showing favoritism, but at least I know that I am protecting my results. If, at the same time, my self-interested act encourages a worthy manufacturer


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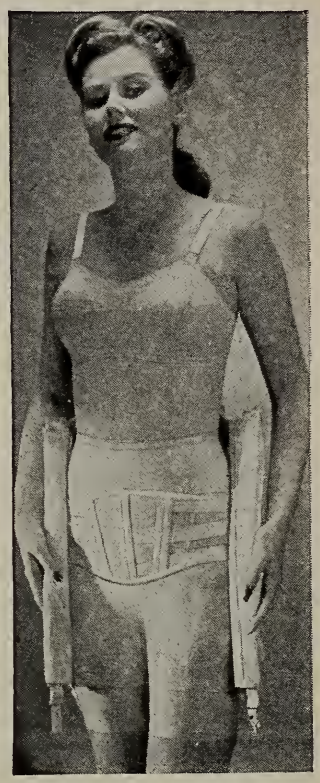

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● When you prescribe a Spencer Support you are assured it will meet your specific requirements, as well as the patient's figure-needs, *because* it will be individually designed, cut and made for the one patient who is to wear it. In addition, it will improve the general health of the patient by means of *posture correction.*

Spencers are non-elastic, light in weight, flexible, perfectly comfortable and easily laundered. They are exceptionally durable and are guaranteed NEVER to lose their shape. (A support that stretches or yields under strain loses its effectiveness.)

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A convenient and compact diagnostic set containing 90 of the most common irritants (dietary, contactants, inhalants, etc.) is essential in determining these factors. Determine the trouble-makers by our new and rapid time-saving technique which permits your assistant to run the complete series within 15-20 minutes.

The positive reactions that occur with the skin test usually indicate those irritants which you instruct your patient to avoid. Some individuals may not coöperate as fully as you wish. By use of our modern, scientific method you can desensitize these patients for those particular trouble-makers and reassure yourself of the results you want.

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## PEPTIC ULCER FILM AVAILABLE

There is now available for free showings before groups of physicians the first complete movie film on peptic ulcer, in color and with sound track.

The film which is entitled "Peptic Ulcer" was produced under the direction of the Department of Gastroenterology of the Lahey Clinic of Boston. The American College of Surgeons has awarded its seal of approval to the film.

Running time of the film is 45 minutes, 1,600 feet of 16 mm. film, and covers a presentation of the following problems of peptic ulcer: Pathogenesis, diagnosis, treatment, pathology, complications, including obstruction, hemorrhage, and perforation, gastric ulcer, surgery and jejunal ulcer.

Arrangements for a showing of the film may be made by writing to the Professional Service Department of John Wyeth and Brother, Inc., Philadelphia, who will provide projection equipment, screen, film, and operator for medical groups, without charge.


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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

CENTRAL AUTONOMIC REGULATIONS IN HEALTH AND DISEASES, With Special Reference to the Hypothalmus. Heymen R. Miller, M.D., Associate Attending Physician, Montefiore Hospital, New York City, Introduction by John F. Fulton, M.D., Sterling Professor of Physiology, Yale University. New York: Grune and Stratton, 1941. $5.50.

Fifteen chapters, 440 pages well and clearly printed in pica type on white paper. It is highly technical but from the clinician's standpoint, dealing with the influence of pathologic morphology on the autonomic mechanism in clinical conditions. Original illustrations help with a well-planned text. Each chapter is followed by its source references.

* * *

ADVANCES IN PEDIATRICS. Editor Adulph G. De Sanctis, M.D., New York Postgraduate Medical School and Hospital; Associate Editors, L. Emmett Holt, M.D., Johns Hopkins Hospital; A. Grame Mitchell, M.D., Late of Children's Hospital, Cincinnati; Robert A. Strong, M.D., Tulane; Frederick F. Tisdall, M.D., Hospital for Sick Children, Toronto, Vol. I. New York: Interscience Publishers, Inc. 1942, $4.50.

This volume of 306 pages consists of ten chapters by various well-known authors dealing with various diseases of children: Toxoplasmosis, Virus diseases, Chemotherapy in Infancy and Children, Electroencephalology, Vitamin K, Persistent Ductus Arteriosis and Its Surgical Treatment, The Premature Infant, Tuberculosis, Endocrinology and short abstracts. The type and technical work are excellent; the book is easily readable and valuable.

* * *

SYNOPSIS OF PATHOLOGY. W. A. D. Anderson, M.A., M.D. Assistant Professor of Pathology, St. Louis University. 294 illustrations and 17 color plates, St. Louis: C. V. Mosby Co.

This is a handy size, round cornered, flexible covered book of 661 pages well printed on good paper, in easily readable type. Paragraphs and topics are indicated in heavy type; the style easy. The subject matter is extensive and up to date, including the Pathology of Vitamin Deficiencies, and Hormones. A random search for many newer conditions found them briefly but adequately treated. A valuable handbook and quick reference.

* * *

FIRST AID AND BANDAGING. A handbook of First Aid and Bandaging by Arthur D. Belilios, M.B., B.S., D.P.H., and others. A. William Wood Book. Baltimore: The Williams and Wilkins Co., 1942. $1.75.

Six hundred twenty-eight pages of clear print on flat surface paper with profuse good illustrating. It is written for first-aid men rather than the doctors, in easily understandable language, giving reasons and explanations. This book is published in England and the language is British.

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## A REVIEW OF TWENTY-FIVE CONSECUTIVE CASES OF ABDOMINAL SECTION

REUBEN PETERSON, M.D.
Grand Rapids, Michigan

The number of cases reviewed in this paper is comparatively small, and while individually they possess no extraordinarily interesting features, collectively they can, I think, be very profitably considered.

Fifteen of the twenty-five cases were performed by my colleague, Dr. Eugene Boise, and it is through his kindness and courtesy, that I am enabled to incorporate his cases into the report and consider the work done in the gynecological department of St. Mark's Hospital, as a whole and not separately. Together we have worked out a system of surgical procedure, which, at least, gives fairly good results. Each was in turn, as the case might be, either operator or assistant. Therefore, the cases can properly be considered together, which would otherwise be inadmissible had each worked separately without the assistance and advice of the other. Whenever differences of opinion arose in regard to different methods, wherever practicable both ways were given a fair trial, and the one giving the best results retained.

Dr. Howard Kelly, in reviewing the work in the gynecological department of Johns Hopkins Hospital, prefaced his article by saying that it is essential that such reports be accompanied by a description of the methods by means of which the results were obtained. Certain broad general principles are universally adhered to by all abdominal surgeons, and it is the consideration of the small details of procedure before, during, and after an operation that proves most profitable to the operator and those who care to go over his work with him. Thanks to the rapid advances of abdominal surgery during the past fifteen years, a report of fifty or more primarily successful laparotomies excites but little comment. It simply indicates that the operator has exceptionally good methods. Therefore, in this paper the technique employed will be described at some length. * * *

The tendency of modern surgery is towards simplicity in technique. Aseptic are slowly but surely being substituted for antiseptic methods. One by one the safeguards and active measures, formerly thought necessary to prevent the entrance of microbes into wounds, are being dispensed with. Lister, with a frankness which does him honor, in an address before a recent surgical congress, said:

"If, then no harm resulted from the admission day after day of abundant atmospheric organisms to mingle unaltered with the serum in the pleural cavity, it seems to follow, logically, that the floating particles in the air may be disregarded in our surgical work. And if so, we may dispense with antiseptic washing and irrigation; provided, always, we can trust ourselves and assistants to avoid the introduction into the wound of septic defilement from other than atmospheric sources."

The aseptic operation, however, has only been arrived at by slow degrees and by a process of elimination of whatever found nonessential. At first, we were accustomed to boil the instruments for one-half hour, after which they were placed in a strong carbolic acid solution, where they remained throughout the operation. The needles, ligatures, and sutures were also kept in a strong antiseptic solution. The sponges were carefully washed in a 1-3,000 corrosive sublimate solution. The abdominal wound was also kept well bathed in the same solution. But gradually these precautions were dispensed with and our results have improved with the changes made. Our surgical creed now is, rigid antisepsis up to the time of making the incision and as rigid asepsis from that time on.

The patient's abdomen is shaved over a wide area the day before the operation and thoroughly scrubbed with hydronaphthol soap and hot water. The skin is then washed with ether and bathed thoroughly with corrosive sublimate solution, 1-1,000. A green soap poultice is then applied for some hours, followed by a sublimate gauze dressing, which remains in place until the operation. Just prior to the latter, this dressing is removed and the skin of the abdomen subjected to a second shaving, scrubbing, and bathing process. After a final wash with sterilized water, the field of operation may be considered as ready for the incision. A vaginal corrosive sublimate douche 1-2,000 is given the evening before and the morning of the operation, and the patient is always catheterized just before the anesthetic is administered.

The operator has one assistant, who passes the instruments, does the sponging and so forth. In order to eliminate as much as possible the introduction of septic material into the wound and abdominal cavity, a second assistant is not made use of except in very difficult operations, when his services are absolutely required. One nurse has entire charge of the sponges. It has been found safer to confine her duties to this one feature, otherwise her hands are apt to come in contact with articles which have not been rendered aseptic, and septic material in this way may be introduced through the medium of the sponges. Likewise it has been found safer for one nurse to have entire charge of the needles, ligatures, and sutures and do nothing else. A third nurse stands ready to assist the anesthetizer or do any work involving the handling of objects which are not aseptic.

*(Continued on Page 902)*

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*(Continued from Page 900)*

The operating room is carefully cleansed before each operation, and every person wears during the operation a long sterilized white gown. The operator, assistant, and two nurses prepare their hands and arms as follows: They are scrubbed for ten minutes with a sterilized brush with hydronaphthol soap and as hot water as can be borne, the water being frequently changed. They are then rinsed off in hot sterilized water and immersed for two minutes in 1-1,000 sublimate solution. A final rinse in hot sterilized water, and they are aseptic and ready for use.

The sterilization of the hands by immersion in saturated solution of permanganate of potassium and oxalic acid solution, as recommended by Drs. Kelly and Welch of Johns Hopkins Hospital, has been given a fair trial, but the process has been found to exert a too violent action upon the skin, when used too frequently.

The main reliance is placed upon the thorough cleansing with soap and water and we have even contemplated doing away entirely with the immersion in the sublimate solution. In our opinion the use of the permanganate solution can be limited to those occasions where extra precautions are necessary to render the hands aseptic, as when they have previously come in contact with exceptionally septic material.

The instruments are boiled for five minutes in a solution of bicarbonate of soda, one tablespoonful to the quart of water. They are then placed in sterilized water, where they remain during the operation, except when in actual use.

The silk is placed in test tubes with absorbent cotton stoppers and sterilized for one hour in Arnold's steam sterilizer. Just before the operation they are again sterilized for one hour, removed and placed in sterilized water, where they remain until ready for use. Silkworm gut is similarly treated. The catgut is prepared by an immersion in 1-1,000 sublimate solution for twenty minutes, alcohol one hour, and oil of Juniper wood forty-eight hours.

The sponges, after being entirely freed from grit by immersion in dilute hydrochloric acid and frequent washings in hot water, are placed in a 1-1,000 sublimate solution for twelve hours and then preserved permanently in a 3 per cent carbolic acid solution. During the operation, they are washed free from blood in sterilized hot water.

The patient's body, except the immediate field of operation, is protected by sterilized sheets and towels.

No antiseptic solution is used after the operation has once begun, unless the hands accidentally touch some object which has not been rendered aseptic. Then they are washed for a minute or two in a 1-1,000 sublimate solution and afterwards rinsed off in sterilized water.

The careful preparation of the patient is considered of prime importance. Whenever possible, this preparation is extended over a period of three or four days prior to the operation. A number of hot baths are given to insure the utmost activity of the skin, which factor may prove of the utmost importance in case the function of the kidneys is in any way impaired by the operation.

A thorough cleansing of the intestinal tract is also highly essential. A laxative is administered at night, for three or four days, and two or three daily movements of the bowels secured. During the morning previous to the operation, two ounces of castor oil are given, which produces a number of liquid evacuations. It would seem unnecessary to lay so much stress upon this feature in the preparation, were it not for the fact that it is so often neglected and the patient subjected to an abdominal operation with intestines loaded with feces. The paralysis of the intestines following their exposure to the air during the operation, allows the bacteria from the fecal matter to pass through the intestinal wall and a septic infection supervenes, to the great perplexity of the operator, who, except in this regard may have used the greatest care in excluding sepsis.

In addition, it has been shown that a thorough cleansing of the bowel prior to the operation has much to do with preventing the nausea and vomiting following the use of the anesthetic. It has been our custom to administer twenty grains of subnitrate of bismuth the night before and the morning of the operation with a view of preventing vomiting. While this has been secured in the vast majority of cases, although ether is always used, it is questionable whether this immunity is due as much to the drug as to the thorough preparation of the intestinal tract. * * *

An analysis of the cases shows:

| | |
|---|---|
| Chronic disease of both ovaries and tubes | 14 |
| Chronic disease of one ovary and tube | 4 |
| Pyelo-nephritis, enlarged mesenteric glands | 1 |
| Old ileo-coecal abscess with chronic peritonitis | 1 |
| Haematosalpinx | 1 |
| Simple ovarian cysts | 2 |
| Suppurating ovarian cyst | 1 |
| Abscess, both ovaries and tubes | 1 |
| Total | 25 |

The following associated conditions may be noted:

| | |
|---|---|
| Retroversion (rectified in each case by hysterorrhaphy) | 6 |
| Vesical calculi | 1 |
| Parovarian cyst | 1 |
| Ventral Hernia following operation | 2 |

Of the twenty-five cases, there were two deaths, one of these (Case 8) had suffered for a year with absorption of pus from an abscess in the neighborhood of the appendix. The operation was undertaken as a last resort, the friends being warned that the case was desperate and her chances of recovery poor. The whole pelvis was a mass of adhesions and the pelvic organs almost indistinguishable. An abscess in the region of the appendix was opened but it was found impossible to remove the sac containing the pus, and the patient died of sepsis and exhaustion on the third day after the operation.

The second patient (Case 21) was also in a weak condition from septic absorption at the time of the operation. She entered the hospital with acute pelvic peritonitis from double pyosalpinx and abscess of both ovaries. At entrance she was delirious, with a high

*(Continued on Page 904)*

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*(Continued from Page 902)*

temperature and frequent chills. Unsuccessful attempts were made to improve her condition before the operation, which was undertaken as a last resort, at the earnest solicitation of the patient's friends. Both ovaries and tubes were enucleated from the mass of dense adhesions binding them to the adjacent organs, but the patient proved too weak to stand the shock of the operation and died within twenty-four hours. The remaining twenty-three cases recovered.

Under the heading "Indications for Operation" have been noted, first: the macroscopical appearances of the diseased organs; second, and most important to the patients, the main subjective symptoms of the disease.

Naturally, the greatest interest attaches itself to the cases of oöphorectomy, since numerically they comprise over two-thirds of the entire number of cases.

In chronic disease of the appendages, four things may well be considered:

1. The extent and chronicity of the disease.
2. The probability of its being cured by other than surgical means.
3. The chances of immediate recovery from the operation.
4. The chances of ultimate recovery.

The surgeon must judge each case separately, and neither ignore nor give undue weight to the warnings of a certain class of self-styled medical gynæcologists, who seem to think that the gynæcologist who uses a knife for the relief of his patient's sufferings is necessarily devoid of conscience, and is simply seeking to increase the number of his operations, irrespective of the welfare of his patients. The operation may have been abused in times past, and may be performed now when the conditions present hardly justify it, but this does not afford ground for its wholesale condemnation. This opposition to the operation has undoubtedly been of value in checking the too hasty resort to the knife, but while this may be true and the reaction necessary to determine the exact position of the operation in surgery, the end is only prolonged by unjust denunciation of the procedure. No one, who has watched cases drag along month after month under local treatment and after partial improvement relapse again from some slight cause, can help being struck by the difference where these same cases are treated surgically. It is difficult, indeed, to be convinced, when one sees his patients restored to health in a very few months after the operation, that unjustifiable means have been employed to bring about this result.

Our patients surely have certain rights of choice. The majority of American women cannot and do not lead lives of idleness. If, then, a working woman, suffering for years with disease of the appendages, prefers the chances of recovery minus those organs to a long drawn-out course of local treatment, with no surety of success in the end, the surgeon is bound to consider and respect her wishes. If the organs are diseased and the circumstances demand their removal, no sentimentality about the "unsexing of women" should stay his hand.

The main difficulty lies in the ability to determine what cases can be cured finally without resort to the knife, and not to prolong the sufferings of those who must eventually submit to an operation in order to obtain relief.

The dangers of the operation with a good technique are small, and the chances of ultimate recovery are, to say the least, as good as by the treatment with electricity, tampons, massage, etc., and the patient is saved many months of suffering, and is not so liable to relapse.

In none of the eighteen cases, fourteen of double and four of single oöphorectomy, was an operation advised without a careful consideration of all the conditions present. In a majority of cases, local treatment in the way of hot douches, glycerine tampons, intra-uterine applications and, in some cases, electricity, had been given a fair trial and had failed to give relief.

The tubes in nearly all the cases were enlarged and showed evidences of catarrhal salpingitis. The ovaries, except in a few, where they were small and cirrhotic, were enlarged, prolapsed, and in varying degrees of cystic degeneration. The removed organs have been preserved in alcohol, and the microscopical appearances will be noted at some future time. * * *

Menstruation has ceased in all the cases, seventeen in number, where both ovaries and tubes were removed. This does not seem to coincide with the results reported by other operators, who find that menstruation persists in 14 per cent of all cases where both ovaries and tubes have been removed. Possibly the fact that we were very careful to remove every particle of the ovarian tissue may afford some explanation of our results, although, of course, the number of cases is too small and the time since the operations too short to draw any very general deductions.

In the six cases where retroversion existed as a complication, the uterus was replaced and suspended from the abdominal wall by passing a large sized catgut ligature around each ovarian ligament, then through the peritoneum, muscles, and fascia. The needle was then passed through the same tissues in the reverse order and the free ends tied within the abdominal cavity. The anterior surface of the fundus was always slightly scarified before the abdominal wound was closed. These six cases have been recently examined, and in every instance the uterus is in good position. While it is impossible to predict as to relapses, up to the present time the results have proved most gratifying. * * *

A study of the temperature curves in abdominal cases is always profitable. Any errors of omission in the technique of the operation will be indicated by an increase of the body temperature. Drs. Robb and Ghriskey, of Baltimore, in a recent article, have shown the impossibility of making wounds entirely free from bacteria. But while some forms are comparatively harmless and their presence can be practically ignored.

*(Continued on Page 906)*

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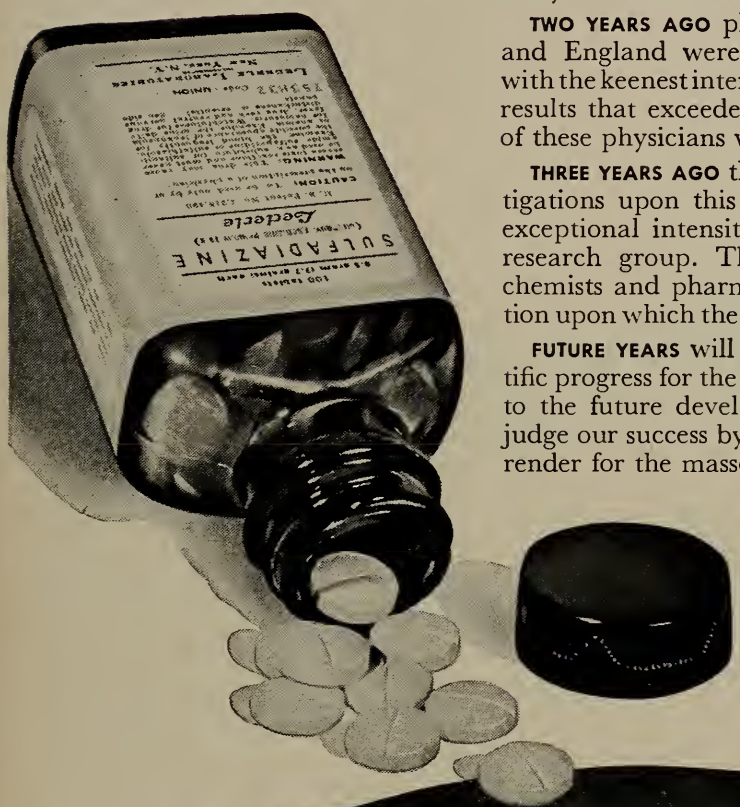


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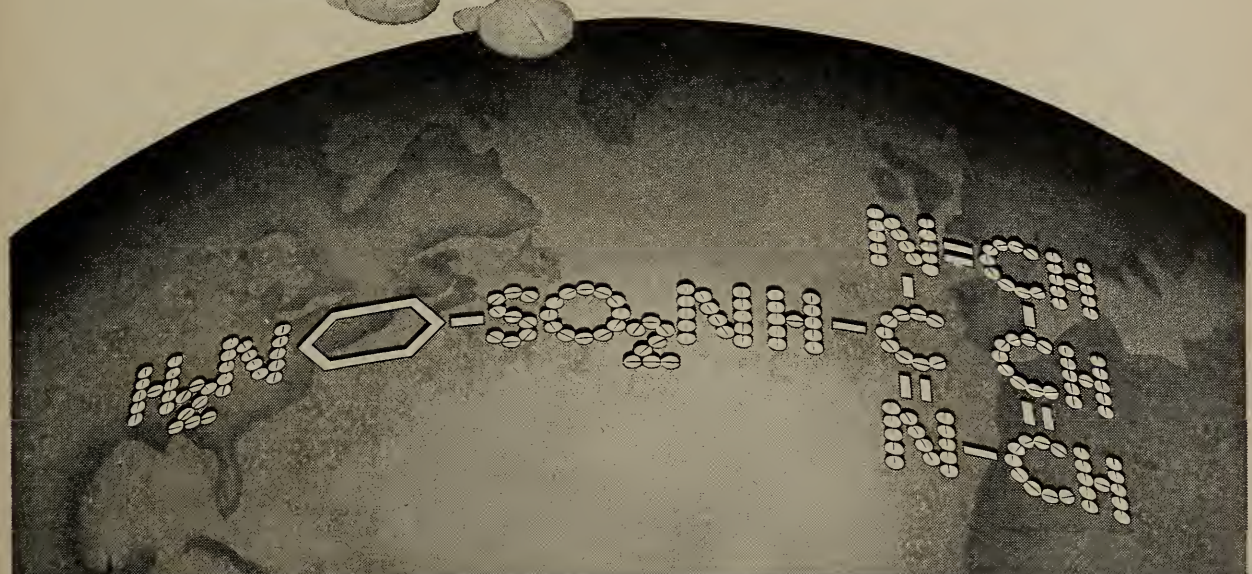

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*(Continued from Page 904)*

other forms are productive of much mischief, and a rise of temperature is always an accompaniment. Hence, it behooves the operator to carefully follow his temperature curves, both singly and collectively, and if, in a series of cases, the rise is above what may be considered normal he should look to his technique for a cause and change it accordingly.

This we are constantly doing, for we consider that ten out of twenty-five cases is by far too small a proportion of normal temperatures, considering the absence of complications. Besides the ten cases where the temperature did not reach 100°, there were eight where it never reached the 101° mark. In the remaining seven cases, it went beyond this point.

In connection with the subject of temperature curves, it is advisable to consider the question of drainage, and it would seem as if here were an explanation of our failure to secure more normal temperatures.

Drainage was employed in but two cases, and then only because of their intensely septic nature. We have depended, and in our opinion in many cases with too much confidence, upon the absorptive power of the peritoneum to carry away the blood and serum poured forth after an operation. While this can safely be done in many cases, where no adhesions have existed, in other cases the risk that is run in overtaxing the peritoneum is shown by a rise of temperature and an increase in the pulse rate. Hence, the difficulty of deciding which cases can be safely left undrained leads us to use the drainage tube more, rather than less frequently.

There is no one mode of procedure in cases of abdominal section which affords so much opportunity for the exercise of good judgment as the use of the drainage tube. While improvements in the method of caring for the tube have, to a great extent, done away with its dangers, it must necessarily always be a cause of anxiety, on account of its affording a direct communication between the external atmosphere and the peritoneal cavity.

It is because of this danger of sepsis that many operators go so far as to say that no case should be drained. This surely would seem an extravagant position to assume upon the question.

Whenever pus is met with in the abdominal cavity, it is safe to drain.

Moreover, while the normal peritoneum may be able to dispose of the blood and serum within the abdomen, its absorptive powers may be so seriously impaired by chronic inflammation, that it will, in its crippled condition, be unable to perform this function. Hence, a drainage tube should always be employed in the presence of adhesions.

Drainage may also prove of great value where the skin and kidneys are unable, for any reason, to perform their functions, by markedly lessening their labors. Hence, the necessity of a careful examination of the urine and a painstaking preparation of the patient before an operation.

The care of the drainage tube should never be left to any except trained assistants. Otherwise the introduction of septic material becomes inevitable, and the drainage tube will be unjustly held responsible for failures which should have been ascribed, not to its use, but to the lack of care in its employment.

The danger would seem to lie in drawing too hasty conclusions from a succession of cases where the tube could be dispensed with, and neglecting to drain the next case, where it is urgently called for. At least, such has been our experience, for a dread of using the drainage tube undoubtedly caused us to jeopardize the life of a patient in a more recent case, where the outcome showed conclusively that drainage was imperatively demanded.

There were stitch-hole abscesses in but four of the twenty-five cases. Three of these occur among the first seven cases, where silk was used to suture the abdominal wound. In the remaining eighteen cases, sterilized silkworm gut was used. Only one stitch-hold abscess occurred, Case 12, and here the infection can be ascribed not to the stitches, but to the contamination of the wound by the contents of a suppurating ovarian cyst.

Silkworm gut is an ideal suture, for it is easily sterilized, pliable, and nonabsorptive. It is our custom to use this suture everywhere, except within the abdominal cavity.

The abdominal sutures are passed two or three to the inch through the skin, subcutaneous tissue, fascia, muscles, and peritoneum, and reversing this order, through the other side. Great care is taken to see that the retracted fascia is drawn towards the central line before the sutures are passed. Neither the peritoneum nor the fascia are stitched separately, the single suture, with the precautions noted above, apparently accomplishing a strong union of the parts.

Two hernias have resulted, Cases 6 and 7. In both of these the wound suppurated. Case 7 subsequently reëntered the hospital and the hernia was operated upon by Edebohl's method, the object of which is to unite the split muscles without opening the peritoneal cavity. The wound healed by first intention, and the patient is now perfectly well.

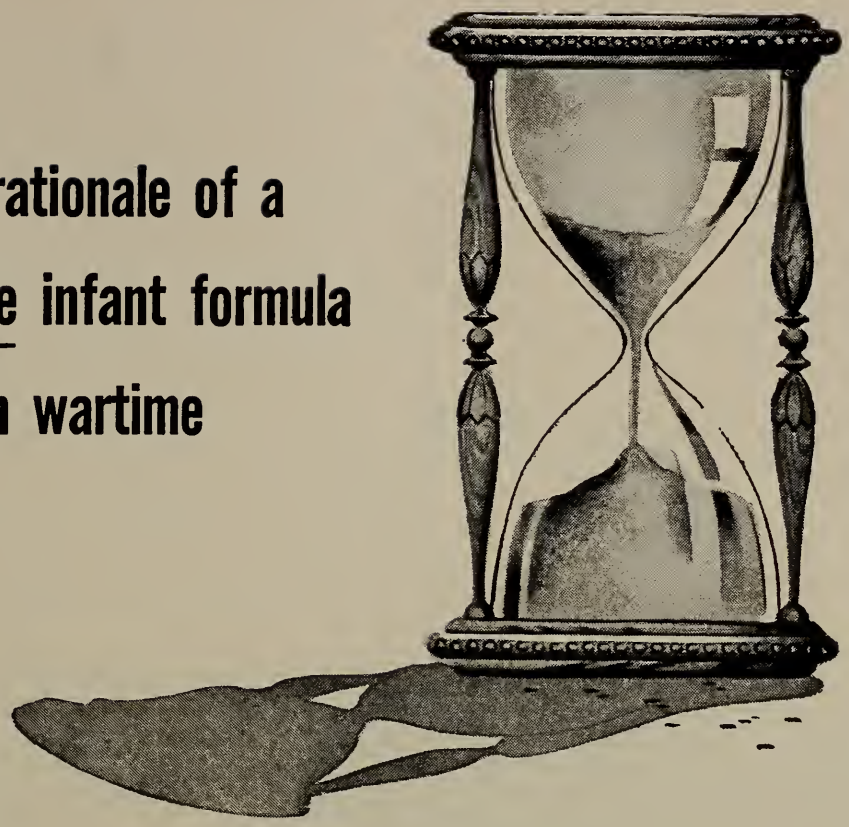
The abdominal wound, before the dressings are applied, is covered with a thick layer of powder of iodoform and boracic acid (1-7). This is not used because of its antiseptic, but because of dessicative properties. The firm crust thus formed over the stitches effectually protects the wound from the invasion of any extraneous material. Over this is placed a layer of sterilized gauze and sterilized absorbent cotton. The entire dressing is held in place by a sterilized gauze spica bandage, which remains undisturbed until the seventh day, when the stitches are removed.

Nothing is administered by mouth for the first twenty-four hours, except occasional sips of hot water. The bowels are moved on the second day by repeated doses of Epsom salts, when the stomach can retain them, or, if this be impossible, by repeated small doses of calomel, followed in a few hours by a turpentine enema.

We have had to learn the lesson of the bad effects

*(Concluded on Page 918)*

# The rationale of a complete infant formula in wartime



YOUR TIME has never been so precious.

There has never been a greater need than now for the physician to seek out and use every possible timesaver.

Such a timesaver is Biolac.

Biolac formulas take practically no time to compute, because Biolac provides *completely* for *all* nutritional needs of the normal infant except vitamin C. There are *no extra* formula ingredients to be calculated.

Since Biolac requires only simple dilution with boiled water, as you direct, the possibility of formula contamination or accidental omission of ingredients by mothers is minimized. You are assured that the baby will get *all* the nutritional elements you prescribe . . . in amounts equal to or exceeding recognized optimal requirements.

For samples and professional information about Biolac, write Borden's Prescription Products Division, 350 Madison Ave., New York City.

**NO LACK IN**

# BIOLAC

**Borden's complete infant formula**

★Biolac is prepared from whole milk, skim milk, lactose, vitamin $B_1$, concentrate of vitamins A and D from cod liver oil, and ferric citrate. It is evaporated, homogenized, and sterilized.

# War Bulletins

**UNITED STATES ARMY**

**Medical Department Officer Recruiting Board of Michigan**

**320 Federal Building**
**Detroit, Michigan**

October 16, 1942

Michigan State Medical Society
Lansing, Michigan

Michigan has passed its quota by several hundred. However, the nation's quota is still lagging. The nation's quota for 1942, is 36,000 physicians including the 12,000 in service as of May, 1942. Because of the good Michigan response, this State will have relatively small quotas to fill next year, as far as can be ascertained at this time. It will probably be necessary to call one the age group 45 to 54 sometime next year, to fill the 1943 quotas. No official statement on that matter is available at present.

Recruiting activities are now being concentrated in 5 states: New York, Pennsylvania, Massachusetts, California, and Illinois; these states have the largest physician population.

Colonel Slevin, President of the Michigan Medical Recruiting Board stated, "that much of the credit for success of the recruitment effort in Michigan was due to the splendid coöperation manifested by the Michigan State Medical Society and its component county branches, as well as the work of the State Procurement and Assignment Chairman, P. R. Urmston, M.D., together with the various county Procurement and Assignment Committees." Colonel Slevin further stated "that in the States where this spirit of coöperation was lacking the results were poor."

"The impression at times has been gained by some physicians," said Colonel Slevin, "that Procurement and Assignment pushed the doctors to get commissions. Perhaps, this may be true, but still we feel that it was for the benefit of the Government and Organized Medicine. To the credit of American Medicine, it can now be said that all physicians' recruiting was voluntary. Michigan has less than 200 men who definitely do not wish to enter the service. This is a very low percentage indeed. The task of Procurement and Assignment Committee was a thankless one, but every committee did a patriotic job. I believe that the committee members were as fair as they could possibly be."

In closing this Board, on behalf of Colonel Priestly, Colonel Slevin, Captain Lukas and the enlisted personnel, we wish to thank each and every one who had a part in the splendid coöperation we received, and especially the Michigan State Medical Society through its officers.

PERRY V. WAGLEY,
Major, M.C.

## Appreciation to Medical Men in Service

The Council of the Michigan State Medical Society, at its September 24 meeting in Grand Rapids, placed on its minutes an expression of sincere appreciation to members in the armed forces for their great sacrifice in joining the Army, the Navy, or the Marines. The Council extends to these members Godspeed and success and satisfaction in their new duties, with the hope that they may return soon to their own state, with victory about their shoulders.

## Recruitment of Physicians for Army

The Office of the Surgeon General has authorized the following statement re medical recruiting:

I. Doctors who volunteered in 1940 and early in 1941 must be promoted, so that doctors who volunteer now should not expect initial appointments in the higher grades.

All appointments will be recommended in the grade of First Lieutenant with the following exceptions:

*Captain.* 1. Eligible applicants between the ages of 37 and 45 will be considered for appointment in the grade of Captain by reason of their age and general unclassified medical training and experience.

2. Below the age of 37 and *above* the age of 32, *consideration* for appointment in the grade of Captain will be given to applicants who meet all of the following minimum requirements:

(a) Graduation from an approved medical school.

(b) Internship of not less than one year, preferably of the rotating type.

(c) Special training consisting of 3 years' residency in a recognized specialty.

(d) An additional period of not less than 2 years of study and/or practice limited to the specialty.

3. Eligibile applicants who previously held commissions in the grade of Captain in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) *may be considered* for appointment in that grade provided they have not passed the age of 45 years.

*Major.—1.* Eligible applicants between the ages of 37 and 55 *may be considered* for appointment under the following conditions:

(a) Graduation from an approved school.

(b) Internship of not less than one year, preferably of the rotating type.

(c) Special training consisting of 3 years' residency in a recognized specialty.

*(Continued on Page 910)*

# How effective is UNICORN'S HORN?

UNTIL SOMEONE OBTAINS A BONA FIDE SPECIMEN FOR CLINICAL TRIAL, WE SHALL NEVER KNOW

Thus the true value of adrenal cortex extract might never have been established had not adequate quantities of a potent material been made available for clinical trial. During the experimental period, when only small amounts of relatively impotent extracts were obtainable, opinions of the therapeutic value of the cortical hormones ran full gamut. Now, however, the efficacy of Sterile Solution Adrenal Cortex Extract (Upjohn) in the treatment of adrenal insufficiency is established, and other uses are under investigation.

**STERILE SOLUTION ADRENAL CORTEX EXTRACT (UPJOHN)** is available in 10 cc. rubber-capped vials.

**Upjohn**
KALAMAZOO, MICHIGAN

*Fine Pharmaceuticals Since 1886*

*(Continued from Page 908)*

(d) An additional period of not less than 7 years of study and/or practice limited to the specialty.

(e) The existence of appropriate position vacancies.

(f) Additional training of a special nature of value to the military service, in lieu of the above.

2. Applicants previously commissioned as Majors in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) whose training and experience qualify them for appropriate assignments may be *considered* for appointment in the grade of Major provided they have not passed the age of 55.

*Lieutenant Colonel and Colonel.*—In view of the small number of assignment vacancies for individuals of such grade, and the large number of Reserve Officers of these grades who are being called to duty, such appointments will be limited. Wherever possible, promotion of qualified officers on duty will be utilized to fill the position vacancies.

II. Active recruitment must continue to keep pace with the needs of the armed forces. Doctors declared available by the Procurement and Assignment Service are now being directly recruited by the Medical Corps.

III. Young physicians are most needed. In many places they seem to be reluctant to enroll. The Surgeon General requests older physicians to urge enrolment of these younger men.

IV. The official way to volunteer is application on the regular War Department forms. No other method of volunteering is official.

V. Every effort is being made to assign men with special training to the work for which they are best fitted.

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## Biddle Lecture

When the present mobilization program started, there were 1,250 physicians in the Army. There are now about 22,000 and we expect 36,000 total by January 1, 1943.

In appointing doctors, an attempt has been made to give them a grade commensurate with their attainments in civil life. This is very difficult and has caused a certain amount of stagnation in promotion of those who had Reserve commissions and who were called early to active duty.

Young medical men are needed, as it takes youth to stand the hard work with troops.

Complaints are heard about the round peg in the square hole. There are many reasons why this cannot be avoided in some instances.

The State of Michigan has reason to be proud of its medical men, as they have come forward and large numbers are serving with the armed forces. Some other states have not done as well.

The question as to whether a doctor will get his practice back after the war has been a deterring factor in certain cases. The thing to do is win the war and worry about the practice later.

The fact that our goal is reached for this year does not mean that we will stop. The Army grows and with it the Medical Corps.

Physical standards have been lowered and many doctors who were declared disqualified six months or a year ago may now be eligible for "limited service." This means that they will be assigned to hospital or dispensary duty and will not be placed on duty with tactical units.

(Notes from the lecture by Col. George F. Lull, Chief of Personnel Division, Surgeon General's office at Grand Rapids, September 23, 1942).

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## Fuel Oil Rationing

Illness, old age or infancy may make necessary auxiliary rationing of fuel oil; consumers may obtain such auxiliary rations by applying to the local rationing board, accompanying the application with a certificate from a licensed physician. In supplying such a certificate the physician is to give the date, the name and the address of the householder. Furthermore, he must certify the nature of the illness, whether acute or chronic, whether or not it is of the type requiring higher indoor temperature, the approximate temperature required and the approximate period for which the supplemental base heat is needed. The physician may at his discretion state the nature of the illness or may give additional information that will be helpful. The applicant himself files the certificate with the local rationing board. Furthermore, as a check, advisory committees are to be set up for each local rationing board. These advisory committees will include two licensed physicians and the county or local health officer. They will review cases in which certificates are questioned or in which a professional opinion is desired.

Thus comes to the medical profession another call for its special services in wartime. Civilian physicians will do their utmost, as usual, to aid in this work as another contribution to the war effort.

---

*Lt. Colonel Sam F. Seeley, M.C.*, who was recently recalled from duty with the Procurement and Assignment Service, Washington, D. C., has been assigned as Executive Officer to the national known "Greenbriar" resort at White Sulphur Springs, W. Va., now a 2,000-bed Army Hospital.

All of Colonel Seeley's many friends in Michigan congratulate him and wish him the best of luck in his new assignment, one of the choicest in the Army.

---

*Medical Officers.*—Please keep the MSMS Journal informed of any changes in your address, in order that the MSMS Journal may be sent to you promptly. Write The Journal, 2020 Olds Tower, Lansing.

The Journal will welcome news items and personals from Michigan physicians in Service. Those on the home front are anxious to read of physicians' experiences in the war, which will be printed when the information conforms to Army and Navy censorship regulations.

---

*The Medical Department Officer Recruiting Board* was disbanded on October 17, having practically completed its work of aiding Michigan physicians in obtaining commissions in the Medical Corps of the Army. Lt. Colonel John G. Slevin has been transferred to Fort Custer as commanding officer of Station Hospital.

# *I like S-M-A!**

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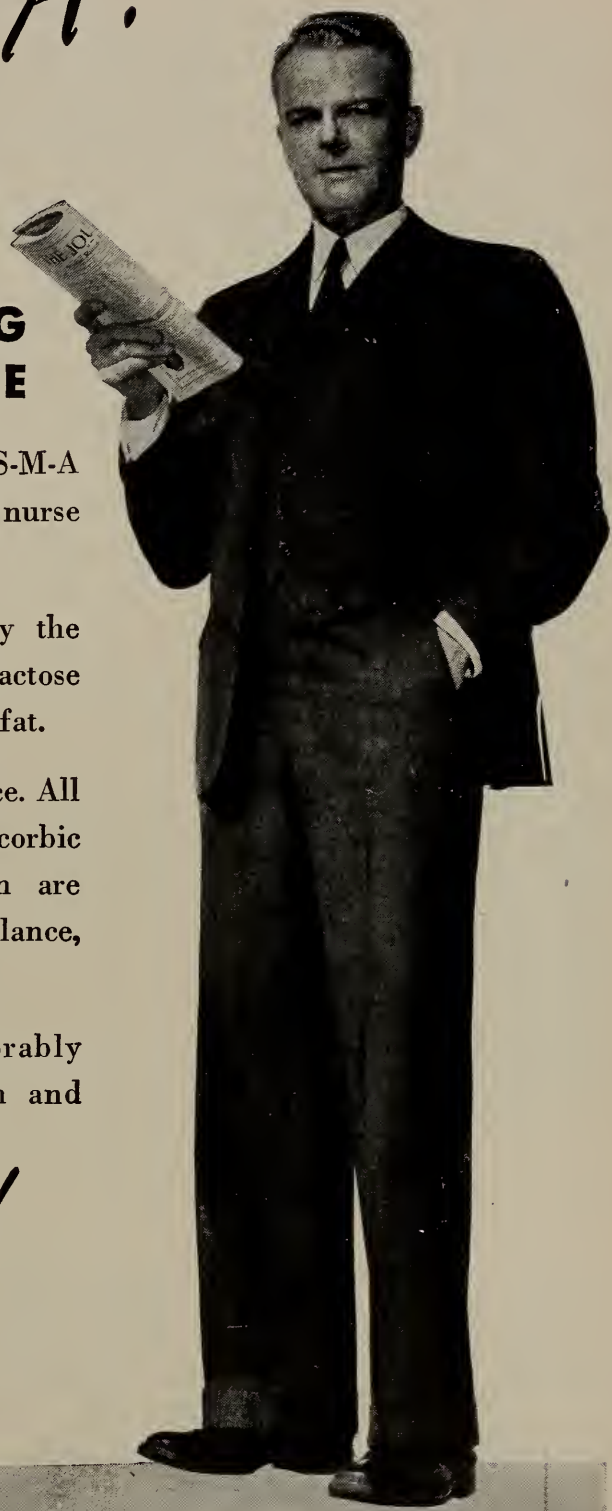

- Directions on how to mix and feed S-M-A can be explained to the mother and nurse in two minutes.
- S-M-A is more easily digested by the normal infant because of the all-lactose carbohydrate and the unique S-M-A fat.
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*S-M-A, a trade mark of S.M.A. Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil, with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

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# Michigan Medical Service

At the annual meeting of the House of Delegates on September 22, 1942, the Michigan Medical Service program was reviewed. A résumé of actions taken is as follows:

- Resolution to set the income limits at $1,200 for an individual subscriber and $1,500 for a family subscriber was rejected after thorough discussion, by a vote of 68 to 28. The present income limits are $2,000 for a single subscriber and $2,500 for a family subscriber.
- Resolution restricting sale and operation of the plan to county areas subject to the approval of the local county medical society was also rejected.
- Resolution recommending the ten principles of the American Medical Association relative to medical service plans was adopted.
- Recommendation that one-half of the Directors of Michigan Medical Service be elected each year for a two year term, with no more than one-third elected from any one county, was referred to the members of the Corporation.

* * *

The annual meeting of the members of the Corporation of Michigan Medical Service followed the session of the House of Delegates. A résumé of the actions taken by the members is as follows:

- Elected to the Board of Directors:

*Professional Representatives:* R. L. Novy, M.D., Detroit; Robert Baker, M.D., Pontiac; Leon M. Bogart, M.D., Flint; Stanley W. Insley, M.D., Detroit; O. D. Stryker, M,D., Fremont; and W. B. Harm, M.D., Detroit.

*Hospital Representatives:* Robert Greve, Ann Arbor; Ralph Hueston, Flint.

*Lay Representative:* Dora H. Stockman, East Lansing.

- Motion that the Board of Directors of Michigan Medical Service be instructed that no certificates be issued to any individual who is a single man with an income of more than $2,000 or a married man with an income of more than $2,500 was not adopted.
- Motion that Michigan Medical Service be in fact actually and completely divorced from Michigan Hospital Service at the earliest possible moment consistent with sound actuarial procedure was carried unanimously.
- Motion that the members of the Corporation instruct the Board of Directors of Michigan Medical Service to authorize the appointment, by the local county medical society, of a Board of Review—a committee to authorize rendering of office surgical services, to review reports of such services, and to serve in handling disputes between physicians and subscribers arising in that particular community, with power of appeal to the main office of Michigan Medical Service —was carried.

Since the 1941 meeting of the members of the Corporation, the enrollment has increased 125 per cent and more than $1,500,000 has been paid out in benefits. There are many problems inherent in such a tremendous expansion, several of which are still unsolved. Probably the most important of these are the problems of better coöperation arrangements with physicians, a more complete medical service plan, and enrollment in rural areas.

More than 80 per cent of the doctors licensed to practice medicine in Michigan are now enrolled with Michigan Medical Service. This is evidence of the support given Michigan Medical Service by the medical profession in Michigan, but even greater coöperation on the part of each physician is necessary for improved professional guidance of the plan.

It is the consensus of most physicians that Michigan Medical Service must extend and expand its service to the low income group. At present, the majority of enrollment is in well populated industrial areas. The Board of Directors is now considering methods of making the service more easily available to persons in rural areas. There is also the fact that the income class which Michigan Medical Service is designed to serve requires greater protection than the Surgical Benefit Plan. During the ensuing year it is hoped that a plan offering medical coverage in addition to the surgical coverage can be worked out.

## COMMITTEE PERSONNEL

*(Continued from Page 896)*

### Medical Preparedness

P. R.Urmston, M.D., *Chairman*..Bay City
F. G. Buesser, M.D.....Detroit
Milton A. Darling, M.D.....Detroit
L. Fernald Foster, M.D.....Bay City
H. A. Furlong, Lt. Col., M.C....Lansing
C. D. Moll, M.D.....Detroit
C. I. Owen, Major, M. C.....Lansing
H. H. Riecker, M.D.....Ann Arbor
J. G. Slevin, Lt. Col., M.C.....Detroit

### Professional Liaison Committee

A. F. Jennings, M.D., *Chairman*..Detroit
W. H. Boughner, M.D.....Algonac
E. L. Chapman, M.D.....Highland Park

### Prelicensure Medical Education

Burton R. Corbus, M.D., *Chairman*..
Grand Rapids
A. C. Furstenberg, M.D.....Ann Arbor
C. R. Keyport.....Grayling
J. Earl McIntyre, M.D.....Lansing
Edgar H. Norris, M.D.....Detroit

### Committee on Scientific Work

L. Fernald Foster, M.D., *Chairman*..
Bay City
R. H. Baker.....Pontiac
Claud Behn .....Detroit
Russell deAlverez.....Ann Arbor
R. H. Denham.....Grand Rapids
J. Lewis Dill.....Detroit
Wm. S. Jones.....Menominee
Traian Leucutia.....Detroit
J. J. McDermott.....St. Joseph
Chas F. McKhann.....Ann Arbor
Mark Osterlin.....Traverse City
H. M. Pollard.....Ann Arbor
Hazel Prentice .....Kalamazoo
Roger S. Siddall.....Detroit
C. J. Smyth.....Eloise
Frank Stiles .....Lansing
H. J. VanBelois.....Grand Rapids
E. P. Wilbur.....Kalamazoo
Nina Wilkerson.....Sturgis
H. B. Zemmer.....Lapeer

### Beaumont Memorial Committee

F. A. Coller, M.D., *Chairman*.....
Ann Arbor
H. C. Mayne, M.D.....Cheboygan
Allan McDonald, M.D.....Detroit
Henry E. Perry, M.D.....Newberry
Lawrence Reynolds, M.D.....Detroit

### Committee on Nurses Training Schools

E. A. Oakes, M.D., *Chairman*...Manistee
A. L. Arnold, Jr., M.D.....Owosso
G. F. Fisher, M.D.....Hastings
Edw. Meisel, M.D.....Midland
A. E. Stickley, M.D.....Coopersville
Don W. Thorup, M.D.....Benton Harbor

### Postgraduate Extension Committee

J. D. Bruce, M.D., *Chairman*, Ann Arbor
E. I. Carr, M.D.....Lansing
J. M. Robb, M.D.....Detroit
R. H. Stevens.....Detroit

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# BACTERIOSTATIC AGENT

Sulfathiazole exerts a prompt bacteriostatic effect upon a number of pathogenic organisms. A pronounced action is observed on the following:

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Remarkable clinical results have been consistently obtained in infectious conditions caused by these organisms. Complications which are commonly encountered in pneumonia, gonorrhea or meningitis are greatly reduced in frequency and severity.

The dosage should be adjusted to the nature of the disease, as well as to the age and condition of the patient. Write for dosage chart and booklet on Sulfathiazole-Winthrop.

Sulfathiazole-Winthrop is supplied in tablets of 0.5 Gm. (7.72 grains), bottles of 50, 100 and 500; also (primarily for children) in tablets of 0.25 Gm. (3.86 grains), bottles of 50, 100 and 500. Sterile powder is available in bottles of 5 Gm., ¼ lb. and 1 lb.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

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*Winthrop* CHEMICAL COMPANY, INC.
*Pharmaceuticals of merit for the physician*
NEW YORK, N. Y. WINDSOR, ONT.

# CONVENTION ECHOES

*A total of 1,746 persons* registered at the 77th Annual Meeting of the Michigan State Medical Society in Grand Rapids, September, 1942. This total does not include members of the Woman's Auxiliary.

| | |
|---|---|
| Doctors of Medicine | 1,066 |
| Guests | 413 |
| Scientific and Technical Exhibitors | 267 |
| GRAND TOTAL | 1,746 |

Despite the fact that 1,300 Michigan physicians were in the armed forces, the 1942 figures compare most favorably with the 1941 registration of doctors of medicine which was 1,216, or only 150 more than this year!

* * *

*Michigan newspapers* gave 1022 inches in their news columns to the MSMS 77th Annual Meeting—the Postgraduate Conference on War Medicine, in Grand Rapids the week of September 20. Thus, a total of 9202 lines was devoted to the Conference. A number of these stories were first-page—and this despite the Solomon Islands, President Roosevelt's trip, and the crowning of Miss America in Atlantic City!

* * *

*Despite* the scarcity of rubber, more rubber stamps were used this year by physicians who roamed through the exhibits affixing their signatures to registration cards at the various booths!

* * *

*Crowded* were the demonstrations of the Kenny Method, made Wednesday and Thursday afternoons, September 23 and 24, in the scientific exhibit of the National Foundation for Infantile Paralysis. Don W. Gudakunst, M.D., and Sue Thompson, M.D., both former Michiganders who are now associated with the Foundation, were in charge of the demonstration.

* * *

*Murray D. Van Wagoner*, Governor of the State of Michigan, attended the 1942 Annual Meeting of the Michigan State Medical Society in Grand Rapids, and made a tour of the scientific and technical exhibits.

* * *

*Bruce Publishing Company*, 2642 University Avenue, Saint Paul, Minnesota, publishers of the MSMS JOURNAL, contributed 2,500 notebooks for use by registrants at the 1942 MSMS Annual Meeting in Grand Rapids. The Society wishes to thank Mr. J. R. Bruce, president of the Company, for the thoughtfulness and courtesy.

* * *

*The sound-movie* "Management of Venereal Disease," featured in the scientific exhibit of the MSMS Syphilis Control Committee and Michigan Department of Health, attracted very interested crowds at its daily showings.

* * *

*Lost* at the annual meeting: A brown felt Royal Stetson hat, with dealer's name: "Jimmy Lynch, Milwaukee," in the Black and Silver Ballroom, Civic Auditorium, September 23. Return to MSMS, 2020 Olds Tower, Lansing, so it may be forwarded to the owner.

*Lost*—The Michigan Tuberculosis Association asks that the transparency showing radioactive tubercle bacilli made by the Spencer Lens Company and loaned to the Association for show in its scientific exhibit at the Michigan State Medical Society Annual Meeting, Grand Rapids, September 23, 24, 25, 1942, be returned to the Michigan Tuberculosis Association, 403 Seymour, Lansing, Michigan. It was borrowed by an interested spectator.

* * *

*What some* of the guest-essayists and others wrote about the 1942 MSMS Annual Meeting (unsolicited):

*Harry Carl Guess, M.D.*, Buffalo, N. Y.: "Allow me to thank you for the hospitality which I received in Grand Rapids. I certainly enjoyed my stay at the MSMS meeting. Met some real fellows and had a taste of western hospitality."

* * *

*Clifford G. Grulee, M.D.*, Evanston, Illinois: "I certainly had a good time in Grand Rapids and thank you very much for your many courtesies."

* * *

*Russell D. Herrold, M.D.*, Chicago: "It was indeed a pleasure to appear before your Society and I deeply appreciate the hospitality in general, partciularly that of Wm. J. Butler, M.D., who was designated as my official host."

* * *

*Harvey B. Matthew, M.D.*, Brooklyn, N. Y.: "I extend my thanks through you to the Michigan State Medical Society for the very pleasant room and the note of welcome, as well as for the basket of delicious fruit—all of which served to demonstrate the well-known hospitality of the 'Michiganders' in general, and her doctors in particular."

* * *

*Irving H. Page, M.D.*, Indianapolis: "Thanks so much for a splendid time."

* * *

*A. H. Parmelee, M.D.*, Oak Park, Ill.: "I enjoyed my visit to Grand Rapids and the pleasure of meeting so many of your fine group. A good many of the men were old acquaintances of mine but many were new to me.

"I want to compliment you on the very efficient way in which the meeting was conducted. My whole experience was extremely satisfactory, and I hope that my contribution was of some little value."

* * *

*Lieutenant Colonel Charles B. Puestow, M.C.*, Walter Reed Hospital, Washington, D.C. (formerly of Chicago): "It was a pleasure to attend and appear on the program of the annual meeting of the Michigan State

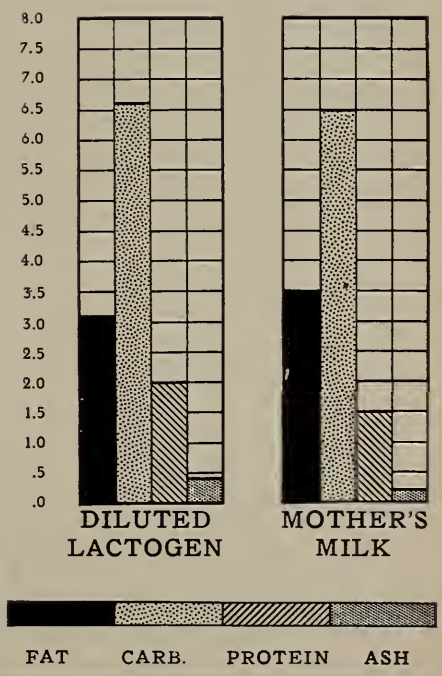
*(Continued on Page 916)*

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

# LACTOGEN

## approximates women's milk in the proportion of food substances

THE cows' milk used for Lactogen is scientifically modified for infant feeding. This modification is effected by the addition of milk fat and milk sugar in definite proportions. When Lactogen is properly diluted with water it results in a formula containing the food substances—fat, carbohydrate, protein, and ash—in approximately the same proportion as they exist in women's milk.

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*"My own belief is, as already stated, that the average well baby thrives best on artificial foods in which the relations of the fat, sugar, and protein in the mixture are similar to those in human milk."*

*John Lovett Morse, A.M., M.D.*
*Clinical Pediatrics, p. 156.*

# NESTLÉ'S MILK PRODUCTS, INC.

## 155 EAST 44TH ST., NEW YORK, N. Y.

*(Continued from Page 914)*

Medical Society. I have heard many favorable comments about the meeting and believe it certainly surpassed in caliber most state medical meetings."

* * *

*Edw. H. Skinner, M.D.,* Kansas City, Mo.: "Thank you very much, indeed, for all the courtesies that were offered to me through the officers of the Michigan State Medical Society. An invitation from your State Society represents a distinct honor. Furthermore, the hospitality at your Grand Rapids meeting was excellent and I thoroughly enjoyed every moment of my stay. Congratulations upon your methods of handling a state medical society."

* * *

*Meyer Wiener, M.D.,* Coronado, California (Formerly St. Louis, Mo.): "Please convey to your president and to your Society my deep appreciation for the extreme hospitality extended to me in so many ways during my visit to Grand Rapids. I have never enjoyed a meeting more."

* * *

*Phillip F. Williams, M.D.,* Philadelphia: "Just a note to tell you that I thoroughly enjoyed my trip to Grand Rapids. It was a little difficult getting there and getting home, but the reception given my two papers and the many courtesies shown me made my short stay very pleasant. I was very much impressed with the program and wish I could have heard all the papers."

* * *

*Paul M. Wood, M.D.,* New York City: "I wish to express to you my sincere appreciation for the opportunity to appear on the program of the Michigan State Medical Society. I had a warm welcome, found a delicious plate of fruit in my room when I arrived, was taken around Grand Rapids by one of our anesthetist members of the Michigan Society, spent several hours in seeing some of the hospitals and the technicians employed, and enjoyed very much the opportunity to be with the anesthetists in their regular meeting at the hotel on Thursday evening.

"Dr. Van Benois was a most gracious 'ubiquitous host,' and Joe DePress and Mary Lou Byrd were evidently also assigned to look after my needs, which was done in a really royal manner."

* * *

*John B. Youmans, M.D.,* Nashville, Tennessee: "I wish to tell you that I enjoyed my visit in Michigan and the meeting of the Michigan State Medical Society very greatly. Your hospitality left nothing to be desired, and I was particularly glad of the opportunity to see my old friends and former students. I wish again to thank the Society for their kindness in extending to me the invitation."

* * *

*Colonel Henry R. Carstens, M.C.,* Camp McCoy, Wis.: "The whole meeting went off better than ever. I was extremely glad to see so many of our members in uniform present. I have heard many remarks about the meeting being unusually successful."

* * *

*Myron G. Becker, M.D.,* Edmore, Michigan, General Practice Discussion Conference Leader: "To begin with, I wish to compliment whoever was responsible for choosing the guest conferees for the Discussion Conference on General Practice on September 24. Both Dr. Sevringhaus and Dr. Guess had subjects which were of interest to general practitioners, as was demonstrated by the number of questions asked and discussions that followed. In all, I think that a great deal of useful information was imparted."

* * *

*Frederick A. Coller, M.D.,* Ann Arbor, Surgical Discussion Conference Leader: "May I congratulate you and your associates on carrying through what seems to have been one of the very best meetings the State Society has ever had. The Surgical Discussion Conference was a success, and the physical arrangements provided by the Society and the hotel were perfect."

* * *

*Parker Heath, M.D.,* Detroit, Ophthalmological Discussion Conference Leader: "The Discussion Conference can be looked upon as a success. It impresses me that the idea could be enlarged more each year, and it further seems to me that the men favor these Conferences more than they do the set, formal papers.

"I would continue to advertise them freely, as in the past, and would emphasize the instructional character of the conferences, as these can develop into a successful postgraduate level type of instruction."

* * *

*Cyrus C. Sturgis, M.D.,* Ann Arbor, Michigan, Medical Discussion Conference Leader: "I think the Conference was a great success because it was well attended, as I estimate that approximately 200 persons were in the auditorium and they seemed to be interested and very attentive. I think for the second year these conferences have proved themselves to be highly advisable and very much appreciated exercises, and I would recommend their continuance."

* * *

*Lt. Colonel James M. Winfield, M.C.*: "I wish to express my appreciation of the truly great pleasure which I have enjoyed at meetings of the Michigan State Medical Society. I sincerely hope that the meetings will be carried on in a forward looking and successful manner, throughout the war period, and I wish you all the very best of luck."

* * *

*Major R. J. Noer, M.C.*: "I have appreciated the opportunity of participating in your MSMS meetings in the past and I trust that I may again enjoy the intellectual stimulus and pleasant associations with the activities of the Society."

* * *

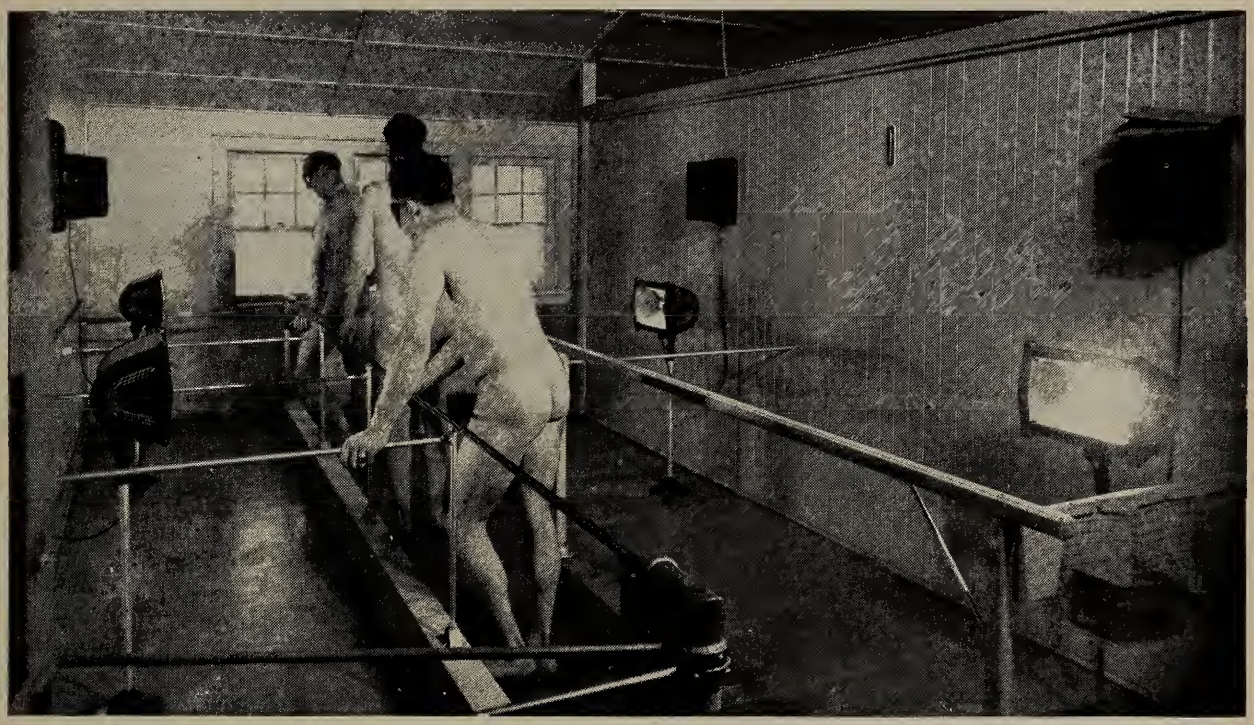
*H. J. Cowell,* Lea & Febiger, Philadelphia: "Congratulations on the best state convention of the 1942 convention year, and every good wish."

* * *

*Alexander M. Campbell, M.D.,* Grand Rapids, Michigan: "It once more gives me pleasure to compliment and congratulate you on the success of the State Meeting in Grand Rapids. I think it was one of the best

*(Continued on Page 918)*

# A TIMELY SUGGESTION:



## Group U-V Irradiation of Workers on the War Production Line

● Now that the Nation looks to the Medical profession for every possible help toward keeping our war workers physically fit and on the production line, routine ultraviolet irradiation would seem a timely suggestion.

As a supplement to other hygienic measures in industrial medicine, general body irradiation with mild doses of ultraviolet two or three times a week has proved highly beneficial to miners and factory workers—tending to build up resistance against respiratory diseases which exact such a heavy toll in man-hours lost to production.

Pictured above is a typical installation for this purpose. Paired G-E Hot Mercury Quartz Lamps are placed on each side of a passageway between shower-room and locker room. A moving hand-rail serves to correctly time the interval of exposure for each individual passing between the lamps. Requires just a few minutes, routinely, two or three times a week.

What could more effectively offset the sparse sunshine of winter months, and the pent-up existence of the great majority of war workers?

Further information, including a blue-print giving details for such an installation, will be sent on request. Ask for Pub. No. C111.

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*Today's Best Buy – U. S. War Bonds*

*(Continued from Page 916)*

meetings I have ever attended, and I know that the amount of work you did and the detail which you covered must have been tremendous."

* * *

*W. T. Coulter,* Vice President of Bruce Publishing Company, Saint Paul: "Your 1942 meeting was a brilliant success. A large part of it is due to very fine organization work."

* * *

*J. Howell Healy,* Vice President of McNeil Laboratories, Philadelphia: "I think, as Harold J. Cowell (President of the Medical Exhibitors Association) expressed, that the Michigan State Medical Meeting, from the exhibitors' standpoint, is just about tops. I hope we will be in a position to be with your fine organization again and again in the future."

* * *

*Lewis Lang,* Smith, Kline & French Laboratories: "This meeting has always been known as 'the best' of all state meetings. This year proved no exception. It is recommended that we attend the Michigan meeting under all circumstances."

* * *

*E. R. Loveland,* Executive Secretary, American College of Physicians, Philadelphia: "Your meeting appears to have been one of the most successful medical meetings held this autumn.

"I believe you are entirely right in continuing your state meetings. As never before, I think medical unity through organization should be maintained. Neither physicians, nor anyone else, can stand still. They either progress or retrogress; without meetings your Society will not progress nor will your members."

* * *

*T. A. Phillips* of J. B. Lippincott Company, Philadelphia: "The Michigan State meeting was successful, as it always has been."

* * *

*R. G. Sickels,* Advertising Manager, Parke, Davis & Company, Detroit: "This was my first medical meeting and I found it very interesting and decidedly worth while. It gave evidence of being 'well run'."

* * *

## HALF A CENTURY AGO

*(Continued from Page 906)*

following the use of opiates for the relief of pain during the first twenty-four or thirty-six hours succeeding the operation. In one or two instances, obstinate paralysis of the bowels ensued. More recently it has been dispensed with entirely, and dependence is placed upon hot applications and hot vaginal douches, for the relief of the pain. The patients are allowed to lie upon either side at will, and this simple procedure goes far towards diminishing the pain.

They are permitted to sit up during the third, but not to walk until the fourth week. They are also required to wear an abdominal bandage for six months, precautions seemingly necessary on account of the possible occurrence of hernia.

In the Hospitality Booth at the 1942 MSMS Meeting

(Left to right) P. L. Ledwidge, M.D., Detroit, Speaker, House of Delegates; H. H. Cummings, M.D., Ann Arbor, President; Col. Henry R. Carstens, M.C., Retiring President; L. Fernald Foster, M.D., Bay City, Secretary.

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# Toxemias of Pregnancy*

## Certain Criteria in Differential Diagnosis

By Palmer E. Sutton, M.D.
Royal Oak, Michigan

Palmer E. Sutton, M.D.
*A.B., University of Michigan, 1920. M.D., Harvard Medical School, 1923. M.S. in Obstetrics and Gynecology, University of Michigan, 1941. Junior attending surgeon in Obstetrics and Gynecology, Woman's Hospital. Junior attending Surgeon in Obstetrics, Mt. Carmel Mercy Hospital. Associate member, Michigan Society of Obstetricians and Gynecologists. Member, Michigan State Medical Society.*

■ Critical studies and efforts at understanding the underlying pathogenesis of the various toxemias of pregnancy will continue to be numerous as long as there remains a lack of etiologic clarity in respect to these complications. Even a casual survey of the literature reveals a wide diversity of ideas.† Dieckmann and others have suggested that some of the confusion might be eliminated by a clearing house or central committee to evaluate past and future studies.

To a certain degree, the recent American Committee on Maternal Health[54,55] has served this purpose in recommending a new classification for universal adoption. Obviously this classification is a compromise,[27,48,79,88] and leans in the direction of simplification. Further it commends the ideas of a differential analysis of the hypertensive complications of pregnancy as early as possible, although some might argue that differentiation is difficult except in retrospect and that it is not entirely essential to good management.

*Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society in Grand Rapids, Sept. 19, 1941.

†See bibliography.

TABLE I. A NEW CLASSIFICATION OF THE TOXEMIAS OF PREGNANCY*

1. Hypertensive disease
2. Renal disease
3. Preëclampsia (severe) (mild)
4. Eclampsia
5. Vomiting of pregnancy
6. Acute yellow atrophy of the liver
7. Unclassified

*Recommended by American Committee on Maternal Health —Drs. R. Mussey, E. T. Bell, F. S. Kellogg, W. W. Herrick and H. J. Stander.

TABLE II. CRITERIA FOR NEPHRITIS—DIFFERENTIAL—TOXEMIAS OF PREGNANCY

Emphasis is placed on those marked with an asterisk*

| | | |
|---|---|---|
| 1. | Age | 0 |
| 2. | Constitution—Endocrine (stigmata) | 0 |
| 3. | Blood pressure | Normal or<br>Elevated slightly<br>Elevated greatly |
| 4. | Albuminuria | 1+ to 2+ |
| 5. | Edema (Usually) | 1+ to 4+ |
| *6 | Symptoms *before or early in pregnancy* (See Tables VII, VIII, IX, X) | |
| *7. | *Fundi* | Normal or *changes becoming permanent* |
| | (a) Angiospasms, constriction | |
| | (b) Sclerosis | |
| | (c) Exudate, hemorrhage | |
| | (d) Neuro-retinitis | |
| *8. | *Renal function* | *Below normal* |
| | Uric acid | Elevation may be first abnormal finding (Mosenthal[52]) |
| | Concentration | Also early—measures degree—below 1.020 |
| | Urea clearance | Sensitive—dependable[56,87]<br>Series gives prognosis[15,27,40]<br>Below normals of Keith (40S 60 M) & Van Slyke (50S 70M ) |
| | Phenolsulphonephthalein | Not reliable during pregnancy[37,52] |
| | Non-protein nitrogen | Elevation later (Specific gravity below 1.015; urea clearance low) |
| 9. | $CO_2$ | Combining power decreased[78] |
| 10. | Cold pressor | Normal or abnormal[18] |

TABLE III. CRITERIA FOR ESSENTIAL HYPERTENSION VERSUS TOXEMIA

(Cardiovascular Renal Syndrome)

Emphasis is placed on those marked with an asterisk*

| | | |
|---|---|---|
| *1. | Age | Discovery in first ante-natal visit<br>Multipara—overweight (Dieckmann[27,31]) |
| *2. | Constitution | Familial character |
| *3. | Blood pressure | 140/95+ *Elevation six months postpartum* |
| *4. | *Cold pressor* | Response excessive[12,18,35,41,62,63] |
| 5. | Response to pituitrin | Normal (Dieckmann[2]) |
| *6. | Fundi | Normal to angiospasm, *general constriction, sclerosis,* hemorrhages, exudates, neuroretinitis, detachment |
| 7. | Albuminuria | 0, 1+ to 3+ |
| 8. | Renal function | Normal |
| | Uric acid | Normal[15] Concentration 1.026 to 1.030[37] |
| | Urea clearance | Normal to slight decrease[16,17,27] |
| | Phenolsulphonephthalein | Normal |
| | Non-protein nitrogen | Normal |
| *9. | Symptoms | In *first* or *second* trimester |

TABLE IV. CRITERIA FOR PREËCLAMPSIA—ECLAMPSIA

Emphasis is placed on those marked with an asterisk*

| | | |
|---|---|---|
| *1. | Age | *Primigravida*—before 30 years |
| *2. | *Onset last trimester* | Rapid course without warning |
| 3. | Constitution | Frequency of endocrine stigmata (Vorzimer et al[80])<br>Prolan-estrin imbalance (Smith & Smith[68,70,74])<br>Hypercholesteremia, hypothyroidism[77,19,57] |
| *4. | Blood pressure | Normal to 210/120. *Postpartum recovery.* |
| 5. | Cold pressor | Response normal |
| 6. | Response to pituitrin | Excessive (Dieckmann[28]) |
| *7. | Fundi | Normal and inorganic changes to permanent damage, if prolonged and progressive[65] |
| 8. | Albuminuria | 4+ |
| 9. | Edema | Usually 1+ to 3+ |
| *10. | Renal function | |
| | Concentration ability | Normal—*temporary diminution* 1.030 and 1.017 and return[15] |
| | Uric acid | Above 4 mgm. (Stander[15]) |
| | Urea clearance | Normal—*slight temporary decrease*[16,27] |
| | Phenolsulphonephthalein | Not reliable in pregnancy |
| | Non-protein nitrogen normal | Normal |
| 11. | $CO_2$ | |
| 12. | Oliguria—anuria | Decreased (Stander[78])<br>Anti-diuretic principle (Teel and Reid[86]) |
| 13. | *Sodium* in tissues | Retention (Taylor et al.[84,85]) |

## Classification[54,55]

This report attempts to tabulate some of the various criteria,[8,12,15,16,17,18,19,27,35,38,42,43,56,64,69] claimed to be useful in the establishment of a differential classification and to discuss the experience in evaluating certain of these criteria. The fifty-four subjects used for this study were both private and staff patients at Woman's Hospital, Detroit, attended by sixteen different physicians. The distribution of cases according to the new classification is as follows:

| | |
|---|---|
| Preëclampsia | 27 cases |
| Eclampsia (convulsions) | 10 cases |
| Essential hypertension | 13 cases |
| Cardio-vascular-renal | 4 cases |
| Glomerulo-nephritis | 2 cases |

Various members of the departments of Obstetrics, Medicine, Ophthalmology, Pathology, and Roentgenology participated.

This tabulation of criteria is not in any sense exhaustive. Other criteria could be added and will be before the ultimate is reached. Let us examine the evidence for and against some of these.

### Age and Gravidity (Present Study)

(1) Preëclampsia and eclampsia occurred in thirty-five cases. In this group, 75 per cent were below twenty-nine years of age and 77 per cent were Gravida I. (2) Hypertensive syndrome occurred in seventeen cases. In this group only 60 per cent were below twenty-nine years of age 40 per cent were Gravida I. (3) Nephritis occurred in two cases. The patients were seventeen and twenty-one years of age, both Gravida I.

Obviously this series is too small from which to draw conclusions, but it does check roughly with other large series such as Dieckmann's,[31] for he also finds that preëclampsia and eclampsia most frequently occur in a first pregnancy before twenty-five years of age, and that those with (essential hypertension) are multigravida, overweight and beyond thirty years of age.

### Constitution

Certain constitutional and *endocrine stigmata have been noted by some authors to occur frequently:*[90]

1. Body weight
2. Distribution of hair
3. Height weight ratio
4. Acromegaloid facies
5. Reversion to male pelvis
6. Low basal metabolic rate
7. Plasma proteins, lower normal

*When we searched our patients for such evidence, the frequency was slight and not impressive.* (Table V). Four out of thirty-five showed obesity or excessive gain of weight. Two had low basal metabolic rates. One had unusually low plasma proteins.

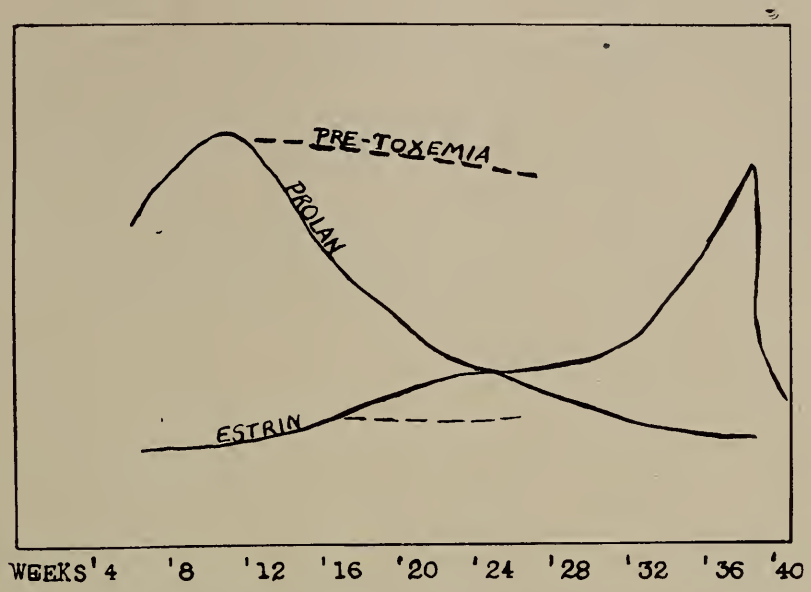


Chart 1. Prolan and estrin levels. Normal levels are indicated by an unbroken line ———; toxemia by a broken line - - - - - - -.

### Prolan Estrin Imbalance

Chart 1 is a diagrammatic representation of the characteristic of prolan estrin imbalance found frequently in diabetic patients who developed toxemia of pregnancy, Smith and Smith.[76] It is reviewed here to indicate the possible direction of the solution of the problem and not because this present study can throw any light on the evaluation of this finding.

### Blood Cholesterol and Basal Metabolic Rate

It has been noted by Bartholomew et al.[7,8,19,57] that hypercholesterolemia and correlated hypothyroidism cause toxemia. Patients whose basal metabolic rate is above plus 10 in the first trimester rarely develop preëclampsia or eclampsia and conversely.

The theory postulates further that cholesterol damages the arterioles of the placenta, the resulting sclerosis and infarction disturbing the metabolism of arginine; the high content of arginine in the placentæ of eclamptics is, in turn, responsible for the production of excess guanadine which in turn produces the spasm and constriction of arterioles.

It is true, experimentally, that the only dietary means by which arteriosclerosis can be produced in animals is by feeding diets high in cholesterol.

Wolf[94] states that the function of cholesterol is unknown, although necessary in maintaining life. It resembles fats in physical properties, but chemically it is one of the higher alcohols, bearing a close relation to male and female sex hormones. It is closely related to the Vitamins A and D. In infection, it is decreased in amount, but increased in convalescence and in pregnancy.

TABLE V. ENDOCRINE STIGMATA (PRESENT STUDY)
Vorzimer, Fishberg, Langrock, Rappaport

| | Eclampsia | Pre-Eclampsia | Hyper-tension | Neph-ritis |
|---|---|---|---|---|
| Body weight—(obese)—(thin) | 1/10 Excess | 3/27 | 4/17 | 100% Thin |
| Unusual Distribution of Hair | 0 | 0 | 0 | 0 |
| Disturbance in weight to height rates | | | | |
| Facies, Acromegaloid (55%) | | | | |
| Reversion to male pelvis (85%) | 0 | 0 | 0 | 0 |
| Basal metabolism —Low | 1/4 | 1/16 | 1/9 | 1/2 |
| Plasma proteins lower than normal pregnancy | 1/7 | 0/15 | 0/9 | 1/2 |

Hemolysis is inhibited by cholesterol and it also affects cell permeability.

Cholesterol is increased in the blood in pregnancy, hypothyroidism, diabetes, chronic tubular and acute nephritis, cholelithiasis and obstructive jaundice, eclampsia, arteriosclerosis, malignant disease and sometimes syphilis of the central nervous system.

Cholesterol is decreased in conditions which affect the whole body and in which there is a heightened emotion and speeding up of psychomotor activity or hyperthyroidism, chronic bacterial diseases, fevers, anemias, cachexia and uremia.

Other authors describe cholesterol as the typical sterol of animal cells and the prevailing belief is that it is synthesized by the animal organism and not absorbed from the food. Some say the site of synthesis is the brain and nervous system; others say the liver, bile, erythrocytes, ovaries, spleen and adrenal cortex may synthesize them. To support this belief that endogenous animal sterols originate in the cells in which they occur, Schoenheimer submits the following proof: namely, he finds that mice on a bread diet synthesize as much cholesterol in a month as their bodies contained in the beginning of the experiment.

It is further noted that normal blood cholesterol appears to be maintained at a constitutional level, which is characteristic for each individual and from which large deviations do not ordinarily occur. Variation among different individuals occurs over quite a wide range, from about 110 to 390 mg. per 100 c.c. of serum. Of this, about one-third is present as free cholesterol, the balance being estrified (Chart 2).

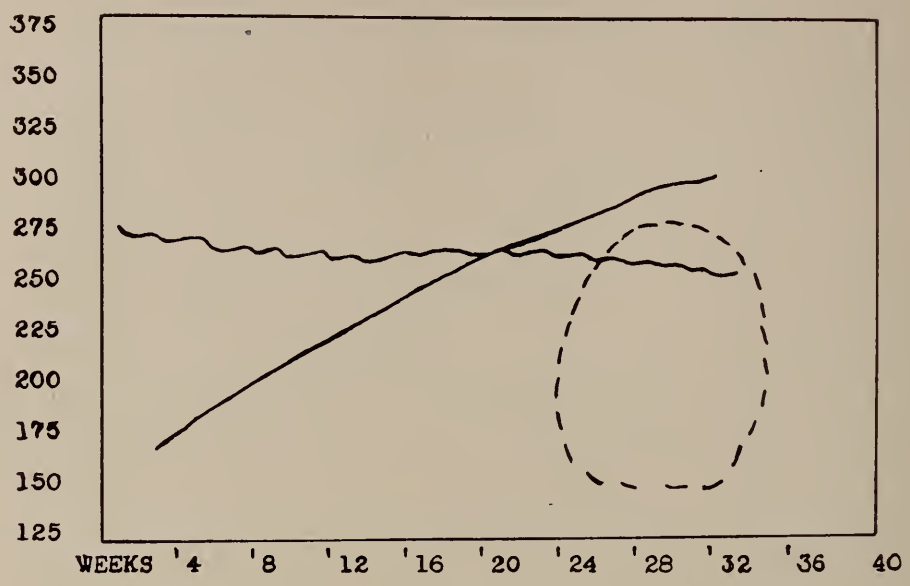


Chart 2. Blood cholesterol in pregnancy. Findings in normal pregnancy are indicated by an unbroken line ————; in toxemia by a broken line - - - - - -. Bartholomew's findings are indicated by a waved line

The values for blood cholesterol in normal pregnancy rise steadily from an average of 175 mgm. at four weeks, to 280 at forty weeks (Chart 2). Dieckmann[25] finds no significant difference in the blood cholesterol in cases of toxemia from that in normal pregnancy.

Blood cholesterol observations on the fifty-four patients of this series were made from the sixth month on only. During the last trimester, no significant difference in the blood cholesterol was found in these patients from the range in normal pregnancy, except in the patients with nephritis who had higher values.

On the basis of the theory, it would seem that the patients in the preëclampsia and eclampsia group would be found to revert back to their hypothyroid state and therefore would show high values at the time of the follow-up examination. This did not prove to be so.

### Correlation with Basal Metabolism Rate

When these observations are correlated with the basal metabolism rates, the nephritic group was the only one in which the metabolic rates were significantly different from normal; both

TABLE VI. SUMMARY OF OBSERVATIONS ON CARDIAC SIZE

Observations—42 Patients—31
"Hypertrophy" observed 20 times in 12 cases:
Glomerulo-nephritis—2 cases
(At autopsy only)
Hypertension 8 cases
Cardiovascular-renal at autopsy or check-up—3
Essential hypertension—5
Antepartum and check-up—2; normal antepartum and hypertrophy at check-up—1; observed only at check-up—1; hypertrophy at antepartum, normal at check-up—1.
Preëclampsia, antepartum 2 cases
(a) Valvular basis—return to normal postpartum
(b) Borderline size
Conclusion: Cardiac hypertrophy is a criterion indicative, when present, of an advanced stage of cardiovascular-renal disease.

antepartum and postpartum metabolic rates were below minus 10 and this correlated with the finding of higher cholesterol values.

In order to carry out the ideas of hypercholesteremia and hypothyroidism into the field of prevention, it would seem to be a simple matter to make these necessary observations during the first trimester and apply the obvious correction. While the observations of the present study do not confirm the theory of Bartholomew and Kracke, neither do they deny it.

### Blood Pressure Height

In respect to blood pressure height, it was noted that antepartum blood pressures tend to approximate each other in all groups and therefore do not serve as differential points. The check-up averages tend to be higher in the hypertension and nephritis groups.

### Cardiac Size

(All observations on cardiac size were made by x-ray or autopsy.)

Cardiac size is not listed as a criterion but might be mentioned as a by-product of studies in hypertension. The term "hypertrophy" is used wherever there was noted an increase of cardiac shadow by x-ray or autopsy. This obviously is not 100 per cent accurate.

Interest in cardiac size as a criterion was stimulated by the internist. It is known that hypertension augments the activity of the heart.[20] It is not known in any instance exactly how long or how much hypertensive disease must exist before increased cardiac size is demonstrable. There is a report of observations of an individual over a period of 28 years with a blood pressure above

TABLE VII. PRE-ECLAMPSIA GROUP—ONSET SYMPTOM SCORE

| | Onset | 2 mos. | 3 | 4 | 5 | 6 | 7–8 | 8–Term |
|---|---|---|---|---|---|---|---|---|
| Hypertension | 22/27 | | | | 2 | 4 | 7 | 9 |
| Edema | 21/27 | | | | 1 | 4 | 8 | 8 |
| Albuminuria | 17/27 | | | | | 4 | 4 | 9 |
| Scotomata | 8/27 | | | | | 2 | 4 | 2 |
| Vertigo | 3/27 | | | | | 1 | 1 | 1 |
| Obesity | 1/27 | | | | | | | 1 |
| Excess gain of weight | 2/27 | | | | | | 2 | |
| Headache | 11/27 | | | | | 1 | 5 | 5 |
| Dyspnea | 1/27 | | | | | 1 | | |
| Nocturia | | | | | | | | |
| Palpitation | | | | | | | | |
| Fatigue | | | | | | | | |

200, without the development of increased cardiac size until the twenty-fifth year (Dr. S. Marks White, by courtesy of a letter from Dr. Olga S. Hansen). Conversely, the progressive and rapid development of increased cardiac size was seen in the two instances of nephritis in the present study.

*In the first instance*, H. E., aged twenty-one (Case 4), had a normal cardiac size at fourteen months postpartum, but at twenty-two months postpartum, at autopsy, there was definite cardiac hypertrophy.

*In the second instance.* A. C., aged seventeen (Case 22), showed a normal cardiac size four months before death in the third month of gestation. She also showed definite increased cardiac size at autopsy.

Experimentally, G. Doring[10] reports the disappearance of an increased cardiac size following the discontinuance of injections of ephedrine-ephetonin which is known to cause left ventricular hypertrophy. One of our cases might seem to substantiate this reversible process. G. P., aged twenty-seven, grav. II (Case 26) was aborted with her first pregnancy when found to have a blood pressure of 270/150 in 1935, at which time x-ray showed increased cardiac size. She was subsequently subjected to a sympathectomy by Dr. M. Peet, and her blood pressure returned

TABLE VIII. ECLAMPSIA GROUP—ONSET SYMPTOM SCORE

| | Onset | 2 mos. | 3 | 4 | 5 | 6 | 7–8 | 8–Term |
|---|---|---|---|---|---|---|---|---|
| Hypertension | 10/10 | | | | | | 5 | 5 |
| Edema | 10/10 | | | | | 2 | 5 | 3 |
| Albuminuria | 7/10 | | | | | 1 | 2 | 4 |
| Scotomata | 4/10 | | | | | | 1 | 3 |
| Vertigo | 3/10 | | | | | | 1 | 2 |
| Obesity | | | | | | | | |
| Excess gain of weight | 1/10 | | | | | 1 | | |
| Headache | 6/10 | | | | | 2 | 1 | 3 |
| Dyspnea | 1/10 | | | | | | | 1 |
| Nocturia | | | | | | | | |
| Palpitation | | | | | | | | |
| Fatigue | | | | | | | | |

TABLE IX. HYPERTENSION GROUP—ONSET SYMPTOM SCORE

| | Onset | 2 mos. | 3 | 4 | 5 | 6 | 7–8 | 8–Term |
|---|---|---|---|---|---|---|---|---|
| Hypertension | 17/17 | 6 | 2 | 3 | | 1 | 5 | |
| Edema | 11/17 | 1 | 1 | 4 | | | 5 | |
| Albuminuria | 6/17 | | | | | 1 | 5 | |
| Scotomata | 6/17 | 2 | 1 | 1 | | 1 | 1 | |
| Vertigo | 6/17 | 3 | 1 | | | | 2 | |
| Obesity | 2/17 | 2 | | | | | | |
| Excess gain of weight | 1/17 | | | | | | 1 | |
| Headache | 10/17 | 1 | 1 | 3 | | 2 | 3 | |
| Dyspnea | 2/17 | | | | | 1 | 1 | |
| Nocturia | | | | | | | | |
| Palpitation | 2/17 | 1 | | | | 1 | | |
| Fatigue | 4/17 | 1 | | 1 | | 2 | | |

to 150/90. In the fourth month of her second pregnancy, in September, 1938, the cardiac size was normal, but in the eighth month, there was increase as also one year postpartum.

### Time of Onset of Symptoms

The four tables giving the score for onset of symptoms support a long held clinical claim and add nothing new.

### Fundus Oculi

The fundoscopic findings are important. The changes in the retina are spoken of as organic versus inorganic. So-called functional or inorganic angiospasms, or localized constrictions, as well as marked generalized constriction, may be observed to reverse and disappear on recovery from the acute hypertensive syndrome. It is also to be noted, Mussey and Mundell[55]) that the degree of vascular spasm parallels the height and duration of the blood pressure and the severity of the toxemia. Retinal findings, therefore, may serve as a guide, although when the syndrome continues or is encountered first after the process has been long standing, even the expert has difficulty determining whether the constriction is functional or permanent; that is, the inorganic may shade into or result in the organic.

[The findings here recorded were described by Dr. Windsor S. Davies.]

### Funduscopic Findings in Eclampsia and Preeclampsia—Present Study

In preëclampsia and eclampsia, 88 per cent (thirty-one out of thirty-five) showed some degree of angiospasm and/or some degree of general construction.

In the preëclampsia group, only two out of twenty-three showed more severe changes, namely hemorrhage and/or exudate, whereas in the eclampsia four out of eight had hemorrhage and/or neuro-retinitis and/or detachment. The less severe spasms and constrictions cleared quickly postpartum, the more severe ones taking several weeks and the patient with the detachment was left with permanent impairment of vision.

### Fundus in Essential Hypertension (Cardiovascular-Renal Disease

In fifteen out of seventeen patients with hypertension, only two of the fifteen had normal fundi. The others had slight general constriction to severe neuro-retinitis with obliteration and/or sclerosis, hemorrhage, edema. At check-up examinations, all were normal except *one* who continued to have marked constriction and sclerosis and hemorrhage.

### Fundus in Nephritis

Two cases of glomerulo-nephritis were followed through abbreviated pregnancies—one

TABLE X. NEPHRITIS GROUP—ONSET SYMPTOM SCORE

| | Onset | 2 mos. | 3 | 4 | 5 | 6 | 7–8 | 8–Term |
|---|---|---|---|---|---|---|---|---|
| Hypertension | 1/2 | 1 | | | | | | |
| Edema | 2/2 | 1 | | | | 1 | | |
| Albuminuria | 1/2 | | | | | 1 | | |
| Scotomata | 2/2 | | | | | 1 | | |
| Vertigo | | | | | | | | |
| Obesity | | | | | | | | |
| Excess gain of weight | | | | | | | | |
| Headache | | | | | | | | |
| Dyspnea | 1/2 | 1 | | | | | | |
| Nocturia | | | | | | | | |
| Palpitation | 1/2 | 1 | | | | | | |
| Fatigue | | | | | | | | |

fourth months and one seven months—and to their exodus. One showed angiospasm, though she had a normal blood pressure at four months. The other was normal at six months, but with angiospasms at seven months. This patient was followed twenty-two months to her death, during which time there was a progressive picture to final sclerosis.

### Summary—Retinal Findings

The funduscopic findings, in general, are an indicator of the pressor factor, if such a term is permissible. A definite graduation in severity and permanence can be noted passing up from preëclampsia to eclampsia to essential hypertension to glomerulonephritis.

### Blood Pressure Reaction to Immersion of the Hand Into Ice Cold Water

There are to be found six published reports dealing with the experience of the Cold Pressor Test. The conclusions are not identical. Simply stated, the test is an effort to record blood pressure response to a standard stimulus. (See Charts 3 and 4; Tables XI-XV.)

Hines and Brown[41] found that, except in a small group of subjects with hypertension, the response was less than a rise of 22 mm. of hg. systolic.

In the other reports, the authors (Briggs and Oerting,[12] Randall, Murray and Mussey,[62] Dieckmann and associates,[35] Reid and Teel[63]) have attempted to carry their findings over to the problem of toxemias of pregnancy. The results, as viewed in the light of our present concepts, are confusing.

TABLE XI. NORMAL PREGNANT WOMEN AT VARIOUS STATES OF GESTATION WITHOUT HYPERTENSION
45 Cases

| Response to Cold | No. | Hypertension |
|---|---|---|
| Above 29 mm. HG. | 1 | |
| Between 20-29 HG. | 7 | One at term |
| Between 10-20 HG. | 26 | 1 mild pre-eclampsia<br>3 mild transient hypertension |
| Between 0-10 HG. | 11 | |

The following features have been especially noted:

1. There is no agreement as to the height of the normal versus the abnormal response.
   Hines and Brown — 20 mm. Hg. systolic / diastolic
   Randall, Murray & Mussey
   Reid and Teel
   Dieckman, Michel & Woodruff — 29 mm. Hg. systolic / diastolic
   Briggs and Oerting did not state what response was considered normal.
   Chesley — 24 systolic / 24 diastolic
2. Repeated observations in the *same* individual have been seen to vary as widely as *48 mm. hg. systolic* and 52 mm. diastolic.
3. It does not serve to predict *absolutely* either toxemia or hypertension
4. It must be conceded, however, that subjects with known hypertension usually show a hyper-reaction (above 24 mm. hg. systolic.)
5. Dieckmann contrasts this with his finding that *hypertensive subjects* respond *slightly to pituitrin* whereas the toxemias (preëclampsia and eclampsia) respond excessively to pituitrin but normally to cold stimulation.

### Experience Cold Pressor Test (Woman's Hospital, Detroit)

Forty-five pregnant women at various stages of gestation were tested. They were clinically normal at the time and without history of familial hypertensive disease. Maximal response was as follows:

| | |
|---|---|
| Above 29 mm. hg. systolic | 1 |
| Between 20 to 29 mm. hg. systolic | 7 |
| Between 10 to 19 mm. hg. systolic | 26 |
| Between 0 to 10 mm. hg. systolic | 11 |

sion or nephritis. We followed four of seven in the borderline group. One of these had hypertension at term, the other three remained normal. Of the twenty-five normal reactors followed through

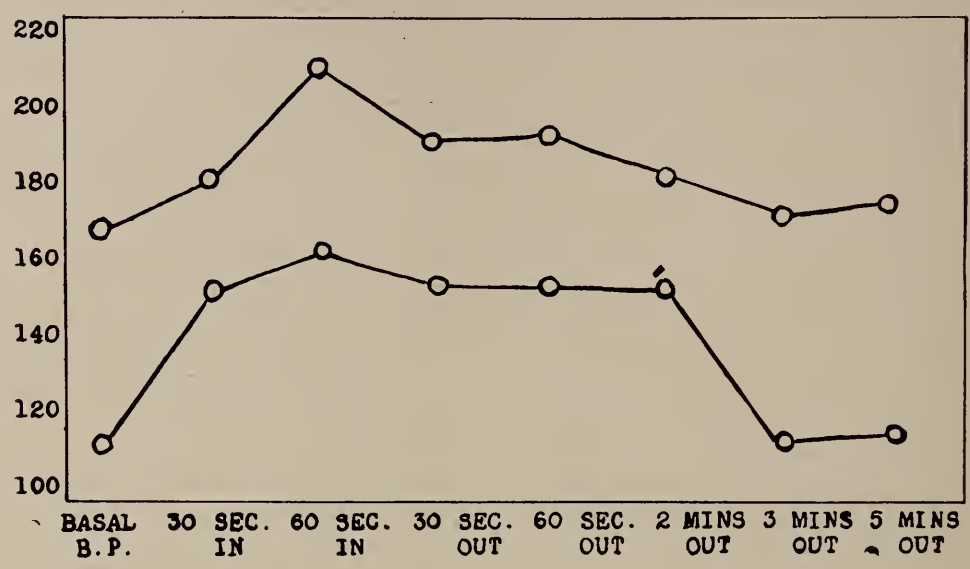


Chart 3. Graph of cold pressor test in a case of essential hypertension in a patient, aged forty-three, not pregnant. Chronic glomerulo-nephritis. Maximal response equals 42 mm. systolic pressure.

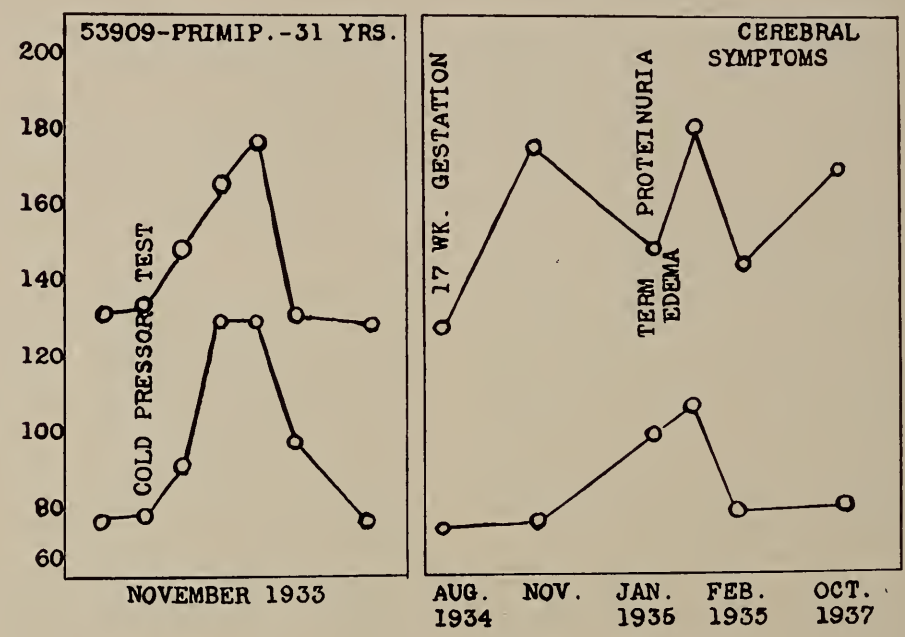


Chart 4. Graph of cold pressor test and blood pressure curve of patient in subsequent pregnancy. (After Dieckmann).

Thus, thirty-seven (twenty-six plus eleven) would be considered normal reactors by all investigators; seven would have to be placed in the "borderline group," and one in the hyper-reactor group. The hyper-reactor followed through pregnancy showed *no* evidence of toxemia, hypertension or nephritis. We followed four of seven in the borderline group. One of these had hypertension at term, the other three remained normal. Of the twenty-five normal reactors followed through pregnancy, twenty-one remained normal throughout; one showed mild preëclampsia, three others showed mild transient hypertension.

### Cold Pressor Tests (Present Study)

Our further experience may be seen in Tables XII-XV.

TABLE XII. COLD PRESSOR TEST—PRE-ECLAMPSIA GROUP

25 Cases

| Response | A.P. | P.P. | CK. |
|---|---|---|---|
| Below 20 mm. | 9 | 6 | 3 |
| Border—20-29 mm. | 3 | 0 | 2 |
| Above 29 mm. | 0 | 3 | 3 |
| Total Observations | 12 | 9 | 8 |

TABLE XIII. COLD PRESSOR TEST—ECLAMPSIA GROUP

10 Cases

| Response | A.P. | P.P. | CK. |
|---|---|---|---|
| Normal—Below 20 mm. | 2 | | 4 |
| Border—20-29 mm. | 2 | | 1 |
| Hyper—Above 29 mm. | 0 | 1 | 2 |

## Summary—Blood Pressure Findings

Our experience is not essentially different from previous reports. In subjects whom we believe for other reasons have essential hypertension, the frequency of a hyper-reaction is high but apparently not absolute.

In a philosophical sense, this failure of absolutism may not be greater than in other clinical signs or symptoms. It is disappointing to find that a test which promised so much on first inspection, falls short of the mark set for it.

As our conceptions clear in regard to the various factors in hypertension, it may be that the meaning of the cold pressor response will be more obvious.

## Kidney Function Tests

In respect to kidney function tests, namely, the *blood uric acid,* the urea clearance, the concentration ability, the blood urea nitrogen and non-protein nitrogen, there are a few differential points which may be restated here.

1. In the presence of a specific gravity above 1020, there is slight, if any, need of other kidney function tests. Chesley[17]

2. Patients deprived of salt and protein may fail to concentrate to 1,020.

3. No reliance may be placed on the phenolsulphonephthalein test during pregnancy.[27,37,52,79]

TABLE XIV. COLD PRESSOR TEST—ESSENTIAL HYPERTENSION GROUP

17 Cases

| Response | A.P. | P.P. | CK. |
|---|---|---|---|
| Normal—Below 20 mm. | 1 | | 3 |
| Border—20-29 mm. | 4 | | 4 |
| Hyper—Above 29 mm. | 5 | 3 | 7 |

TABLE XV. COLD PRESSOR TEST—NEPHRITIS

2 Cases

| Response | A.P. | P.P. | CK. |
|---|---|---|---|
| Normal—Below 20 mm. | 0 | | |
| Border—20-29 mm. | 1 | Death | |
| Hyper—Above 29 mm. | | | Death 1 |

TABLE XVI. CONCENTRATION TESTS—(VOLHARD FAHR)

Preëclampsia—20 formal tests in 13 of 25 patients (Range 1017 to 1037)

| | A.P. | Urea Clearance | Bl. Uric Acid | P.P. | CK. |
|---|---|---|---|---|---|
| Below 1020 | 1 | 31 S | 4.3 | A.P. REC. 1 Mo. | |
| 1020 | 2 | 17 S<br>18 S | 4.7<br>6.1 | 1030-267M.<br>1030-112M.<br>2.6 | |
| Above 1020 | 5 | 5 below normal with | | 6 normal | 6 |

TABLE XVII. TOTAL SERUM PROTEINS

Normal Non-pregnant—6.9 to 9.6
Pregnant Normal *15 Per Cent Decrease* (Dieckmann Stander) = 5.865 to 8.16
Mean = 7.02

| | A.P. | P.P. | CK. |
|---|---|---|---|
| Pre-eclampsia | $6.61^{74}$ | | $6.6^{42}$ |
| Eclampsia | $5.12^{49}$ | $5.75^{5}$ | $6.55^{55}$ |
| Hypertension | $5.96^{68}$ | | $6.77^{41}$ |
| Nephritis | $3.89^{55}$ | | |

4. The blood uric acid is increased in a high percentage of instances in the preëclampsia and eclampsia group (Stander and Cadden[15]).

5. The blood uric acid, however, may be the first "test" substance increased in incipient renal insufficiency,

TABLE XVIII. PRE-ECLAMPSIA GROUP

25 Cases

| | Age | Grav. | B.P. | C.P. | Fundi | Concent. | Urea Cl. | Uric Acid | TSP | NPN |
|---|---|---|---|---|---|---|---|---|---|---|
| A.P. | 80%<br>Under 29 | 80% GR. T. | 135/90<br>TO<br>220/130 | Norm. 11<br>B.L. 1 | Norm. 5<br>Sl. Spasm<br>Constr. } 15 | 1017-1032 (8) | 11-79 S (15)<br>75-118 M. (4) | 3.2-6.7 (12)<br>9 above<br>3.9 | 4.9-7.5 (17) | 24-62 (15) |
| P.P. | | | 110/70<br>TO<br>148/115 | Norm. 6<br>Hyper. 3 | Norm. 2<br>Hemor. 2<br>Spasm 2<br>Neuro-ret. 1 | 1024-1031 (6) | 18-70 S (7)<br>29-267 M. (11) | 2.4-6.2 (5)<br>1 above<br>3.9 | | 32-42 (8) |
| CK. | | | 103/58<br>TO<br>135/95 | Norm. 3<br>B. L. 2<br>Hyper. 3 | Norm. 3 | 1026-1037 (6) | 58-110 M. (10) | 2-3.7 (4) | 6.6 (1) | 24-27 (2) |

TABLE XIX. ECLAMPSIA GROUP

10 Cases

| | Age | Grav. | B.P. | C.P. | Fundi | Concent. | Urea Cl. | Uric Acid | T.S.P. | N.P.N. |
|---|---|---|---|---|---|---|---|---|---|---|
| A.P. | 70%<br>Under 29 | 70% GR. T. | 145/90<br>TO<br>205/130 | Norm. 3<br>B.L. 1 | Norm. 1<br>Spasm 1<br>Constr.<br>Spasm } 1<br>Hemor. | 1020-1027 (2) | 39 S | 3.6 (1) | 5-5.25 | 26-55 (4) |
| P.P. | | | 110/70<br>TO<br>220/140 | Hyper. 1 | Norm. 1<br>Constr.<br>Spasm } 3<br>Hemor. 1<br>Constr.<br>Detach. } 1 | 1020-1030 (4) | 24-91 M. (6)<br>27-59 S (4) | 2.5-5.9 (3) | 4.9-6.66 (9) | 26-39 (9) |
| CK. | | | 108/68<br>TO<br>120/85 | Norm. 4<br>B. L. 1<br>Hyper. 2 | Norm. 4<br>Imp. Vis. 1 | 1024-1030 (3) | 50-81 M. (6)<br>39-59 S (2) | 1.9-4.1 (5) | 6.13-7.1 (4) | 20-30 (6) |

or it may remain normal even with advanced renal impairment (Mosenthal[52] and Myers[56])

6. The urea clearance is a sensitive test and reliable. Maximal clearances are more reliable than standard. (The difference relates to the rate of urinary output.)[16,17,27,52,87]

Observations in the present study were, that there is a diminished concentrating ability during the acute phase of a toxemia with corresponding drop in the urea clearance values and rise in the blood uric acid. Recovery in the direction of normal values proceeds with clinical improvement.

We employed the Volhard-Fahr concentration test, and the Keith values of *50 S* and *60 M* for

TABLE XX. ESSENTIAL HYPERTENSION (CARDIOVASCULAR-RENAL)
17 Cases

| | Age | Grav. | B.P. | C.P. | Fundi | Concent. | Urea Cl. | Uric Acid | T.S.P. | N.P.N. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 15 | 10 | 138/80 | | Norm. 1 | | 8-70 S | 2.4- | 5.1- | 20- |
| A.P. | 17<br>25<br>Yrs. | 17<br>GR. II | TO<br>260/155 | Norm. 1<br>B.L. 4<br>Hyper. 5 | Sl. Const.<br>Spasm } 2<br>Sev. Const. to Scler. 4 | 1020-<br>1031<br>(8) | (8)<br>50-101 M.<br>(8) | 6.6<br>(9) | 8.19<br>(12) | 45<br>(10) |
| P.P. | | | 115/80<br>TO<br>200/110 | Hyper. 3 | Norm. 1<br>Const. 2<br>Scler. 1 | 1019-<br>1030<br>(8) | 8-39 S<br>(2)<br>19-100 M.<br>(8) | 2.1-<br>9.7<br>(5) | | 22-<br>44<br>(6) |
| CK. | | | 108/70<br>TO<br>219/130 | Norm. 3<br>B. L. 4<br>Hyper. 7 | Norm. 7<br>Scler. 1 | 1024-<br>1034<br>(10) | 47-70 S<br>(2)<br>42-183 M.<br>(15) | 1.7-<br>4<br>(10) | 6.2-<br>7.3<br>(3) | 24-<br>36<br>(4) |

TABLE XXI. NEPHRITIS
2 Cases

| | B.P. | C.P. | Fundi | Urea Cl | N.P.N. | Card. Size |
|---|---|---|---|---|---|---|
| A.P. | 120/70<br>220/152 | 28/20<br>(B) | Spasm<br>(4 M. & 7 M.) | Below 20<br>(4) S | 26-42 | Normal |
| P.P. | 130/90<br>172/118 | | General Constriction<br>Neuro-Retinitis<br>Hemorrhage | 17 M<br>(1) | 45-93 | Normal |
| CK. | 160/122 | 33/30<br>(A) | Constriction<br>Spasm<br>Sclerosis | 4-3-2 M | 55-170 | Hypertrophy at autopsy |

urea clearance, which correspond with the Van Slyke values of *60 S and 70 M.*

Standard clearances were more frequent during the acute phase and maximal more frequent as recovery occurred.

In general, the clearance values obtained for the toxemias were lower than those of Dieckmann[27] and Chesley.[17] Non-protein nitrogen and blood urea nitrogen values remain normal until the specific gravity is below 1.015 and the urea clearance repeatedly below normal.

TABLE XXII. FETAL WEIGHT

| Group | Average Weight |
|---|---|
| Pre-eclampsia | 5 lbs. 3½ oz. |
| Eclampsia | 6 lbs. 13 oz. |
| Essential Hypertension | 4 lbs. 10½ oz. |
| Cardiovascular-renal | 3 lbs. 3¼ oz. |
| Nephritis | 2 lbs. 7 oz. |

### Total Serum Proteins

The total serum protein levels in preëclampsia, eclampsia and essential hypertension and cardiovascular-renal disease show only slight, if any, significant drop from the values for normal pregnancy. It is usually considered that lowered values are one of the factors in the mechanism of edema. Only in the nephritic group did we find marked drop in the total serum protein values.

### Management (Present Study)

In the preëclamptic group, all received prenatal care before the seventh month and the management was conservative in twenty-one out of twenty-five patients. Cesarean section was done in four out of twenty-five patients; three of these were Gravida I and 1 was Gravida II, and the indication was progressive toxemia. In four out of the twenty-one treated conservatively, bougie induction and rupture of the membranes was done twice; bag induction was done twice. In the cesarean cases, three living babies were obtained; one was nonviable.

In the eclampsia group, all received prenatal care. The onset of severe symptoms began at seven and one-half to nine months. Seven of the 10 were treated conservatively and three were sectioned. Ten living babies were obtained, and while there was morbidity, there was no mortality.

In the essential hypertension group, all received prenatal care except one who first visited her doctor at eight months. There were eleven cesarean sections in seventeen cases. Of these nine were sterilized. Twelve living babies were secured; three were nonviable and two stillborn. There was 1 maternal death postoperative due to vascular accident. Eleven of the group were moderately to severely ill.

In the glomerulo-nephritis group of two patients, one was treated conservatively, and delivered spontaneously a stillborn fetus at seven months; the other was delivered by vaginal hysterotomy of a nonviable fetus at four months. There was 100 per cent fetal and maternal mortality.

## Fetal Weight

In the preëclampsia group, the weight ranges from 2½ pounds to 8 pounds 10¾ ounces, averaging 5 pounds 3½ ounces.

In the eclampsia group, the range was from 3 pounds to 9 pounds 11 ounces, averaging 6 pounds 13 ounces.

In the essential hypertension group, the range was from 3 pounds to 7 pounds 10 ounces, averaging 4 pounds 10 ounces.

The fetal weights in the various groups correspond with the general seriousness of the complication.

## Conclusions

This review of some of the differential characteristics of the hypertensive complications of pregnancy would indicate that our methods of differentiation still fall far short of the ultimate goal. Much has been claimed, little is substantiated. We are committed to the idea that these entities which grossly resemble each other are separable, yet when confronted with an instance our ability may not secure classification until several months postpartum. However, there should be no serious difficulty in determining nephritis with diminished renal function. Essential hypertension seems to have characteristics which set it apart from the so-called toxemias. Information obtainable as indicated concerning each patient's vascular system, endocrine balance, and kidney function as early in pregnancy as possible, will serve to guide us in the management.

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# Acute Suppuration in the Spaces of the Neck*

By Samuel Iglauer, M.D., F.A.C.S.
Cincinnati, Ohio

Samuel Iglauer, M.D.

*M.D., Ohio Medical College, 1898; F.A.C.S.; Professor of Otolaryngology, College of Medicine, University of Cincinnati; Director of Otolaryngology, Cincinnati General Hospital, Children's Hospital, and Jewish Hospital; member, American Laryngological, Rhinological, and Otological Society, American Broncho-Esophagological Assn., American Laryngological Assn., American Academy of Ophthalmology and Otolaryngology.*

During recent years a great deal of exact attention has been given to deep infections in the neck. These infectious processes may localize in the lymph glands, in the "spaces" of the neck, or occasionally within the veins. The anatomic spaces contain loose distensible areolar connective tissue. The spaces are limited by tough, fibrous layers (fascia) or by muscles or viscera. The spaces most commonly involved are: 1. Peripharyngeal; 2. Retropharyngeal; 3. Parapharyngeal (Pharyngo-maxillary); 4. Periesophageal (Mediastinitis); 5. Submental (Ludwig's Angina); 6. Septic thrombophlebitis (jugular) may occur as a complication.

The signs and symptoms of infection in each space will be enumerated, and the surgical approach to each space will be briefly described.

Deep infections in the neck are usually secondary to some primary lesion in the mouth, pharynx, or esophagus, and are, therefore, of especial interest to the laryngologist, the pediatrician, and the dentist, who frequently encounter these infections in their incipiency as well as in their terminal stages. In addition, the roentgenologist is concerned with the localization of the abscesses, while the surgeon is interested in the approaches to and the drainage of the areas involved.

## Surgical Anatomy

The abscesses tend to localize in the "spaces" of the neck. These spaces contain loose areolar connective tissue capable of great distention when infected or filled with extravasations or air. The areolar tissues are best developed and most extensive in those regions in which, under physiological conditions, adjacent parts or organs are called upon to move or glide freely one against the other. Thus the most extensive space, the postvisceral space, is found between the coverings of the spinal column and the posterior walls of the pharynx and esophagus (Fig. 1). Mobility in this area is essential for the act of deglutition, vomiting, etc., as well as for the rotation of the head and neck.

In addition to the postvisceral space there is a

Fig. 1. The spinal column has been removed, exposing the postvisceral space. P, the posterior wall of the pharynx; E, the posterior wall of the esophagus. (Note that the space behind P and E is a continuous space.) T, thyroid gland; 1, lateral retropharyngeal lymph nodes; 2, neurovascular bundle. (Modified after A. Most.)

definite surgical space lateral to the pharynx; namely, the pharyngomaxillary, or parapharyngeal space. There is also a right and left peripharyngeal space in the external connective tissue coat of the pharynx (to be described below). Furthermore, there is a space anterior to the trachea, the pretracheal space (of surgical importance in tracheotomy and laryngectomy). The submandibular space is of especial importance in infections involving the floor of the mouth (Ludwig's angina). Finally, the parotid, the submaxillary, and the thyroid gland each lies within a separate space surrounded by a so-called capsule. The cervical spaces are bounded, or surrounded, by denser layers of connective tissue, the "fasciæ" of the neck, as well as by adjacent viscera or muscles, each of the latter in turn having its own adventitial connective tissue coat, or periorganium.

The great nerve-vessel trunk of the neck, the neurovascular bundle or "carotid sheath," is in intimate relation with the dense connective tissues of the neck, so that the sheath is adjacent to the more important spaces (Fig. 1). According to the older anatomists, the carotid sheath is formed by the fusion of the three principal layers of the deep fascia about the great vessels of the neck, providing a sort of conduit for their tran-

*From the Department of Otolaryngology, College of Medicine, University of Cincinnati.

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sit. This concept has been generally accepted, but the studies of Zuckerkandl[25] and Parsons[19] fail to show any separate space within the carotid sheath, and Parsons is of the opinion that the so-called sheath is an artifact created by the scalpel of the anatomist.

According to a new interpretation of the connective tissues of the neck, as set forth by Weintraub,[24] the nerve-vessel bundle does not result from a fusion of fascial layers, but the bundle is, in fact, a nerve vessel trunk line from which branch line vessels and nerves radiate in sheets of connective tissue "like the pages from the back of a book." They are mesentery-like sheets and have the same function. "These sheets are important surgically (1) because the organs to which they go can be liberated for exposure of deeper parts, most physiologically by swinging them aside on these nerve-vessel sheets, and (2) because these sheets form in part the boundaries of many spaces of the neck" which contain loose areolar connective tissue. In addition, Weintraub finds that each neck organ (and muscle) is invested with a periorgan connective tissue layer (periorganium) comparable to the outer coat of an artery or to a tendon sheath. The periorgan tissue may consist of a single layer or may have a double layer with a space between the two layers. At times this interlayer space assumes surgical importance, as will later be described under peripharyngeal abscess.

## Regional Pathology

Infection within the spaces of the neck may occur either as an acute or a chronic process. In this paper only the acute infections will be considered, since they may occur as life-threatening emergencies which may require prompt surgical intervention. The infection usually has its origin in some structure within the mouth, pharynx, or esophagus, from which it invades the adjacent space or spaces. The most common primary focus is in the tonsillar or peritonsillar tissue. Other sources are found in oral infection involving the teeth, mandible, or mucosa. Descending infection may occur in mastoiditis or petrositis. Diphtheria, scarlet fever, and Vincent's angina may inaugurate the cervical infection. There is often a history of trauma such as tooth extraction, fracture of the mandible, stab or gunshot wounds, as well as perforation from within from sharp or impacted foreign bodies in the pharynx or esophagus. Certain operations such as tonsillectomy, laryngectomy, esophagostomy, and thyroidectomy may be complicated by cervical infection. Curiously enough, tracheotomy seldom gives rise to such a complication.

The infectious process is usually transmitted through lymph channels in the form of a lymphadenitis with subsequent breaking down of the infected lymph glands. More rarely, it is spread through venous channels in the form of a septic thrombophlebitis. Not infrequently, especially after trauma, it occurs as a fulminating cellulitis, or phlegmon, spreading through the areolar tissues of the neck.

Finally, an abscess may not remain confined to one space but may rupture into an adjoining space or spaces. As a terminal process the pleural or pericardial sacs may be invaded.

## Parapharyngeal Abscess

The parapharyngeal, or pharyngomaxillary, space lies lateral to the pharynx wall which forms its inner boundary. Its external wall is formed by the body of the mandible* and the internal pterygoid muscle and also by the capsule of the parotid gland. Posteriorly, the space is limited by the transverse processes of the upper cervical vertebræ with their coverings. On cross section at the tonsil level, the space is triangular in outline and contains the styloid process with the muscles attached thereto. The great vessels and the ninth, tenth, and twelfth nerves lie behind the styloid process. In its vertical extent the space has the shape of an upright funnel beginning at the petrous bone and terminating at the fused fascia[20] internal to and below the angle of the mandible. From the above description it will be noted that the superior constrictor muscle of the pharynx, with its connective tissue coverings, is the only structure intervening between the tonsils and the parapharyngeal space.

*Pathology.*—From the standpoint of pathological anatomy the most common source of parapharyngeal involvement lies in adjacent infected tonsillar or peritonsillar tissues.

The space may also be contaminated by the needle or solution in injecting for tonsillectomy

*From this, it follows that the term "pharyngomandibular" is preferable to pharyngomaxillary.

under local anesthesia and also in the nerve block employed by the dentist. Injury to the constrictor muscle during tonsillectomy also opens a direct pathway for infection.

The parapharyngeal space may also become infected by the extension (or rupture) from an abscess in a contiguous organ (parotid) or space (peripharyngeal, retropharyngeal, submandibular). On rare occasions thrombosis or erosion and rupture of the vessels traversing the abscess may occur.

*Signs and Symptoms.*—When the parapharyngeal space becomes infected, there is considerable external swelling and tenderness behind and below the angle of the jaw. There is marked trismus and dysphagia due to splinting of the internal pterygoid muscle. The tonsil bed and tonsils on the affected side are dislodged toward the midline. On bimanual palpation with one finger in the mouth, deep fluctuation may sometimes be elicited. The general symptoms, fever prostration, toxemia, et cetera, may be slight or severe. In the differential diagnosis simple lymphadenitis, parotitis, and submaxillary gland infection must be ruled out.

*Treatment.*—Batson[2] has shown that a small incision at the angle of the jaw in the interval between the parotid and submaxillary gland, followed by the introduction of a curved forceps, hugging the inner aspect of the mandible (internal pterygoid) may suffice for the drainage of the abscess. At other times the T-shaped incision of Mosher,[16] exposing the submaxillary gland, which is lifted upward out of the way, may be necessary, especially if there is any suggestion of a venous thrombosis being present. If pus is not obtained through the external incision, it may sometimes be found after removing the tonsil on the affected side. Infection of the parapharyngeal space following tonsillectomy can sometimes be drained internally by blunt puncture through the tonsil bed.

### Peripharyngeal Abscess

A retropharyngeal abscess is usually defined as a collection of pus in the areolar tissues behind the pharynx, that is, in the "retropharyngeal" space. If one examines the retropharyngeal space in the cadaver, it is quite evident that it is in direct continuity with the space behind the esophagus and that there is no anatomic barrier between these two compartments (Fig. 1).

It is, therefore, difficult to explain the localization or stabilization of a suppurative process in

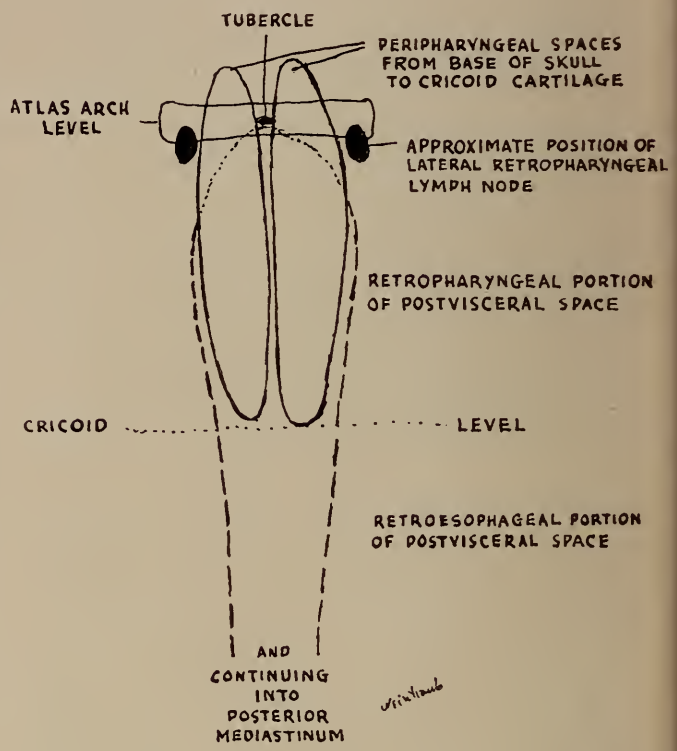


Fig. 2. Schema of the topography of the pair of peripharyngeal spaces, the unpaired postvisceral space, and the relation to the lateral retropharyngeal lymph nodes. (Weintroub)

the retropharynx and its failure to descend into the mediastinum. I shall endeavor to explain this localization on an anatomic basis after considering the etiology of such an abscess.

*Etiology.*—Since the time of Gillette,[9] 1867, and Bokai,[5] 1876, it has been generally recognized that an abscess in the retropharynx usually results from the breaking down of a suppurating lymph node. These lymph glands occur in two groups, a median and a lateral group, of which the latter are clinically the more important. The lateral nodes lie on a level with the articular processes between the atlas and the axis. Typically, they are found just medial to the internal carotid artery and the superior cervical ganglion. The retropharyngeal lymph nodes receive their drainage from the nose, the nasopharynx, and the Eustachian tube (Fig. 1).

According to Weintraub,[24] the peripharyngeal connective tissue coat (periorganium) can be separated by blunt dissection into two layers, exposing a right and a left peripharyngeal space

with a vertical fibrous septum between them. Beside these paired intramural peripharyngeal spaces there is the median unpaired extramural retropharyngeal space (mentioned above) continuous with the retroesophageal space. The lateral retropharyngeal lymph nodes are in intimate relation with the upper outer wall of the peripharyngeal space, and as I have endeavored to show, suppuration in these glands,[11] following the path of least resistance, would tend to rupture into the adjacent peripharyngeal space, giving rise to a closed peripharyngeal abscess. This would explain the incarceration of the abscess and its failure to extend into the postvisceral compartment (Fig. 2).

Fig. 3. Lateral roentgenogram of a girl, aged 4 years. Arrows point to an abscess behind the pharynx.

Furthermore, the clinical site of the abscess and the anatomic site of the peripharyngeal space correspond. The term, "peripharyngeal" abscess would, therefore, seem to be appropriate, reserving the term, "retropharyngeal" abscess for an abscess situated in the postvisceral compartment.

*Signs and Symptoms.*—Given a patient, usually an infant, having considerable difficulty in swallowing, with evidence of respiratory obstruction associated with inspiratory retraction at the sternal notch and lower ribs, one should suspect the presence of such an abscess. Inspection may show a bulging in the posterolateral pharynx wall, and peroral palpation may reveal a tense fluctuating mass of the consistency of a tennis ball. As I have pointed out,[11] a lateral roentgenogram of the neck clearly shows the outline of the mass encroaching upon the lumen of the pharynx and larynx. Such a picture can readily be taken without disturbing the child (Fig. 3). Left to itself, the abscess may extend into the parapharyngeal space or into the postvisceral compartment; or it may at times cause death from asphyxia, either with or without rupture into the larynx. On rare occasions it may give rise to a fatal hemorrhage by eroding the internal carotid artery.

Nevertheless, the prognosis in these cases is excellent provided the abscess is promptly opened and drained. The ordinary acute abscess should be opened through the mouth. General anesthesia is contraindicated. The infant is placed in the hanging head position. Using the index finger as a guide, a blunt forceps is pushed through the pharynx musculature into the abscess cavity and then opened. As the contents are evacuated (employing a suction pump if available), the infant should be elevated by the heels to prevent any pus from entering the trachea. A chronic or "cold" abscess originating from caries of the cervical vertebræ, although producing a retropharyngeal swelling, occupies the prevertebral muscle space and should be approached by an external route to prevent contamination from the flora of the mouth.

### Postvisceral Space

This space is of great importance in the consideration of infectious processes deep in the neck and posterior mediastinum. It is the most extensive and best defined of all the spaces and, according to Pearse,[20] constitutes the pathway of 71 per cent of descending infections reaching the mediastinum from the neck.

The postvisceral space lies behind the pharynx and esophagus and contains an extensive loose network of areolar tissue. The posterior wall of the space is formed by the vertebral column with its attached muscles and ligaments and their connective tissue covering. In the neck on each side the nerve-vessel bundle forms the lateral limits. Inferiorly, the space is continuous with the posterior mediastinum.

That portion of the postvisceral space behind the pharynx is usually termed the retropharyngeal space, but since it is not separated by any

anatomic barrier from the space behind the esophagus, it constitutes, in fact, the uppermost and widest portion of the retrovisceral compartment.

Fig. 4. Foreign body which had perforated the esophagus seen lying free in an air-conditioning abscess cavity. (The bismuth capsule is arrested above the constriction.) External incision, drainage—recovery.

*Pathology.*—Infection may enter the retrovisceral space by various routes. Trauma from perforating or impacted foreign bodies in the pharynx or esophagus plays an important rôle, as well as injury from instrumentation or from gunshot or stab wounds. Infection after operations on the neck may descend along this pathway. It may also occur by gravitation from some adjacent infected compartment such as the parapharyngeal or peripharyngeal. The infection of cervical caries seldom invades the postvisceral space, since the tough prevertebral ligaments and muscles act as a barrier.

*Symptoms.*—The symptoms are those of extreme dysphagia, prostration, fever, pain, with tenderness and swelling at the root of the neck. Orton[10] has emphasized a tender spot behind the outer border of the thyroid gland. There is marked leukocytosis.

Perforation of the esophagus is usually accompanied by interstitial emphysema due to the escape of air into the periesophageal tissues or to gas-forming bacteria (Myerson[17]). X-ray examination may demonstrate the presence of air bubbles in the tissues even before they have become palpable at the root of the neck, thus enabling the surgeon to establish an early diagnosis[12] (Fig. 4). The roentgenogram also reveals the marked swelling of the tissues behind the esophagus, pushing the esophagus and trachea away from the spinal column. Esophagoscopy may reveal the site of perforation, as well as the area of greatest swelling. Figure 5 is from a case of cellulitis causing massive retropharyngeal and retro-

Fig. 5. Massive swelling due to cellulitis in the postvisceral space. External incision and drainage with recovery.

esophageal swelling extending into the posterior mediastinum.

*Treatment.*—With increasing pain, fever, and swelling, together with signs of emphysema, as a rule the only hope of saving the patient is by cervical mediastinotomy or, possibly, by an internal esophagotomy. The cervical approach to the hypopharynx and esophagus, as described by Von Hacker[22] and Marschik,[15] and as elaborated by Furstenberg[8] and by Pearse,[20] consists of an incision along the internal border of the sternocleidomastoid muscle, followed by lateral retraction of the carotid sheath and medial retraction of the strap muscles and thyroid gland. The middle thyroid vein and inferior thyroid artery may require ligation. By blunt dissection the esophagus is approached and then gently pulled forward, exposing the postvisceral compartment. A gauze dam is then placed below the abscess to prevent gravitation into the posterior mediastinum. Postoperative drainage with suction through the drainage tube (soft rubber) should then be instituted.[8]

### Ludwig's Angina

A century ago (1836) Ludwig[14] described a clinical entity which to this day still bears his name. A brief biographical reference to Ludwig may be apropos at this time on account of certain incidents in the present world war.[1] Ludwig

was a practicing physician in Stuttgart when Germany was under the domination of Napoleon. When Napoleon invaded Russia, Ludwig accompanied the French army and was taken prisoner by the Russians at Smolensk. During his imprisonment Ludwig became ill, probably with typhus fever, from which he recovered. Subsequently he was exchanged, and returned to his home. Several years later, when Great Britain and Germany formed an alliance against Napoleon, Ludwig joined the German army and took part in the campaign against Napoleon.

The term, Ludwig's angina, has been used rather indiscriminately in the diagnosis of various inflammatory swellings in the neck, but no case should be so labeled unless it conforms to Ludwig's original description. He described the lesion as a "gangrenous induration of the cellular tissues of the neck . . . a peculiar wooden-like hardness . . . on which no impression can be made." It was further characterized as a "hard swelling under the tongue with the calloused ring extending around the internal circumference of the inferior maxilla and marked by deep red and not infrequently dark blue discoloration."

Present-day studies by Blair,[3] Ashurst,[1] Blassingame,[4] Grodinsky,[10] and others all tend to confirm the classic description. Ashhurst defines the disease as "an acute inflammatory process involving the cellular tissues of the floor of the mouth and submaxillary region of one or both sides of the neck."

The anatomic site of the lesion is in the cellular tissues in the floor of the mouth and submaxillary region, usually below the mylohyoid muscle (buccal diaphragm) but frequently extending through the diaphragm into the sublingual region. It usually appears in the submandibular region on one side but may rapidly spread beyond the midline to the opposite side. Laterally, it is limited by the horizontal rami of the mandible, and inferiorly, by the hyoid bone. For this reason it is sometimes called a suprahyoid phlegmon. The most common source of infection is from an infected lower molar tooth with the pus discharging toward the lingual aspect of the jaw bone. Some cases follow molar extraction. An ulcer in the floor of the mouth may originate the process. I have encountered one case complicating a facial impetigo.

*Signs and Symptoms.*—The onset is usually rather sudden with the appearance of a board-like, painful, tender swelling in the submaxillary region, rapidly extending across the midline. The mucous membrane in the floor of the mouth alongside and under the tongue becomes red and edematous, and the tongue is pushed upward and backward. Trismus becomes marked, dysphagia ensues, and the speech becomes muffled and guttural. The swelling may extend downward to and sometimes beyond the hyoid bone. Submucous edema occurs at the root of the tongue and may involve the larynx, producing marked dyspnea. Owing to the trismus, laryngeal examination may be impossible. On rare occasions a sense of deep fluctuation is imparted to the examining finger.

The progress of the disease is rapid unless relieved by operation. The patient may succumb from spreading cervical cellulitis, from asphyxia (edema of the larynx), from septicemia, or from a complicating mediastinitis or pneumonia. Spontaneous rupture (rare) into the pharynx may occur.

*Treatment.*—Surgical intervention is indicated as soon as the diagnosis has been established. Free external incisions, under local anesthesia, should be made. The first incision should be placed over the most prominent swelling, usually parallel to and a finger's breadth within the lower margin of the mandible (avoiding the facial artery and submaxillary gland). A second deep incision from the chin to the hyoid bone is usually necessary, and frequently a third lateral incision corresponding to incision Number 1. The incisions should usually penetrate the mylohyoid muscle as far as the buccal mucosa and should be followed by gentle finger exploration. Too vigorous exploration may cause sudden death, possibly from stimulation of the carotid sinus.[21] I have witnessed one case in which sudden arrest of respiration and death occurred after the abscess had been opened and was being explored. The wound should be left wide open with cigarette or gauze drains. With evidence of laryngeal obstruction, tracheotomy should not be deferred. Supportive treatment and appropriate chemotherapy are indicated.

### Thrombophlebitis—Arterial Hemorrhage

Any deep cervical abscess may involve the coats of the veins or arteries in the infected area.

Thrombosis of the veins is more common than involvement of the thicker and tougher arteries. Primary thrombosis of the veins may occur by direct extension from an acutely infected tonsil, as shown by Fraenkel.[7] More frequently, venous thrombosis results from contact with infected adjacent lymph channels or lymph glands,[21] and still more frequently, a cellulitis or abscess initiates an endophlebitis.[13,23] The arterial coats may also be involved in the inflammatory process which may lead to erosion, rupture, and hemorrhage. The latter may occur within the tissue spaces or may escape through a drainage opening if one is present. Such hemorrhages may occur in repeated attacks or may be fulminating from the start.

Venous thrombosis should be suspected in all neck infections if the patient develops repeated chills, fever, and sweats with a leukocytosis and any evidence of metastatic emboli in the lungs, pleura, or other portions of the body. Positive blood cultures, usually streptococcal, may be obtained late in the disease. There may be tenderness along the course of the internal jugular or some of its tributaries.

*Treatment.*—The treatment for venous thrombosis consists of exposing the internal jugular, the common facial, and the posterior facial veins, with drainage of the parapharyngeal space. If the veins are found to be thrombosed or collapsed, they should be ligated and removed. The tonsil on the affected side should then be removed.

Severe or repeated arterial hemorrhage serves as a warning of imminent danger and usually demands ligation of the common carotid artery. Many lives have been lost because these warning hemorrhages have not been heeded.

## Summary

1. Deep abscesses tend to localize in the "spaces" of the neck, which contain loose areolar connective tissue.

2. The cervical spaces are bounded by dense sheets of connective tissue, as well as by adjacent viscera or muscles.

3. Infections within the spaces are usually secondary to some primary focus in the mouth, pharynx, or esophagus, and are usually transmitted through lymph channels.

4. Infection occurring within the parapharyngeal, the peripharyngeal, and the postvisceral space is discussed.

5. The term, Ludwig's angina, should be limited to infection occurring in certain definite spaces in the floor of the mouth.

6. Thrombosis of the veins and erosion of the arteries in the neck may occasionally occur as a complication of deep cervical infection.

7. The surgical approach to each space is briefly described.

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*X-ray pictures in industry may be speeded up by a faster fine-grain photographic film now available. The new film is said to be twice as fast as those now in general use. Shorter exposures or lower voltages will also reduce wear on equipment.—Science News Letter, October 10, 1942.*

# Problems in the Differential Diagnosis of Coronary Sclerosis*

By Arlie R. Barnes, M.D.
Division of Medicine, Mayo Clinic
and
Raymond D. Pruitt, M.D.
Fellow in Medicine, Mayo Foundation
Rochester, Minnesota

A. R. Barnes, M.D.

A. R. Barnes, M.D.

*M.D., Indiana University, School of Medicine, 1919; Professor of Medicine, Mayo Foundation for Medical Education and Research, University of Minnesota, and Chief of a Section in Medicine, The Mayo Clinic, Rochester, Minnesota; Diplomate, American Board of Internal Medicine.*

Raymond D. Pruitt, M.D.

*B.S., Baker University, Baldwin, Kansas, 1933. B.A. in Animal Physiology, Oxford University, England, 1936. M.D., University of Kansas, 1939. Fellow in Medicine, The Mayo Foundation, Rochester.*

So much has been said and written on the subject of coronary sclerosis that there is some evidence of a tendency to make the diagnosis more frequently than the facts warrant. Unfortunately, the syndrome of angina pectoris is a diagnosis that has to be made on the basis of the patient's symptoms and much skill and experience is required in arriving at the diagnosis. There is a tendency to allow the electrocardiogram to influence this diagnosis, unduly. There are other clinical conditions, such as pericarditis, pulmonary embolism, cholecystic disease and diaphragmatic hernia, which may simulate the pain of coronary artery disease very closely. This discussion will concern itself with the essential clinical features of coronary disease and its differential diagnosis from the clinical conditions mentioned.

No disease occupies a more sinister position in the minds of the public and of the medical profession than coronary sclerosis. It is not the fact that coronary sclerosis alone or in combination with hypertension is the chief cause of death after forty-five years of age that gives rise to apprehension, but rather it is the frequency of sudden and often unanticipated death from this cause that emphasizes dramatically the uncertain tenure of life. Obviously the recognition or the exclusion of coronary sclerosis is a major problem of diagnosis, and failure either to identify the disease or to exclude it may lead to inconvenience or disaster to the patient and to embarrassment of the physician.

Coronary sclerosis manifests itself in a variety of ways. The commonest of these is the syndrome of angina pectoris. Of equal significance is the syndrome of coronary occlusion which may occur without any antecedent evidence that the heart was diseased. The clinical picture of progressive myocardial failure, in the absence of angina pectoris or of hypertension, occasionally may have its basis in coronary sclerosis. And finally there is a group of cases in which occult coronary sclerosis is discovered only at necropsy; the subjects during life never exhibited symptoms from which the condition could have been suspected.

### Diagnosis of Angina Pectoris

The diagnosis of angina pectoris continues to offer difficulty to the medical profession. The mistakes made are of two kinds: first, failure to recognize the syndrome; and second, interpretation of thoracic pain as angina pectoris when it is not.

There are three characteristics of the anginal syndrome which constitute a diagnostic triad of the condition:

1. The distress is situated behind the sternum. The pain of angina pectoris may be felt elsewhere in the thorax, the neck, the jaws or the epigastrium, but if such pain is to be denoted angina pectoris, then the relationship of the symptoms must conform in all other respects to that characteristic of the disease. The use of the term "precordial pain" is objectionable inasmuch as pain so described is frequently in the apical region or in the left anterior axillary line, and such pain usually proves not to have its basis in coronary sclerosis. If distress on effort has its situation beneath the sternum, the presumption is that coronary disease is its cause; if the pain is in the lateral thoracic wall, the burden is on the examiner to prove that it is angina pectoris.

2. A characteristic feature of angina pectoris is that the attack is precipitated by anything that increases cardiac work. These are, in order of importance, physical exertion, particularly walking, excitement, ingestion of food, or combinations of these factors. Angina pectoris is produced much more readily if the patient walks soon after eating. If the pain developing under these circumstances is located in the epigastrium the patient, and sometimes the physician, suspects that it is caused by some intra-abdominal pathologic process. This essential relation of cardiac overload to the onset of the attack is diagnostic only if the seizure subsides in a few minutes after the provocative factor ceases to operate.

*Read before the meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 19, 1941.

3. The attack of angina pectoris is brief. The typical seizure is over in a few minutes, seldom lasting longer than fifteen minutes. Attacks of substernal pain continuing an hour or more should lead always to the suspicion that coronary occlusion has occurred.

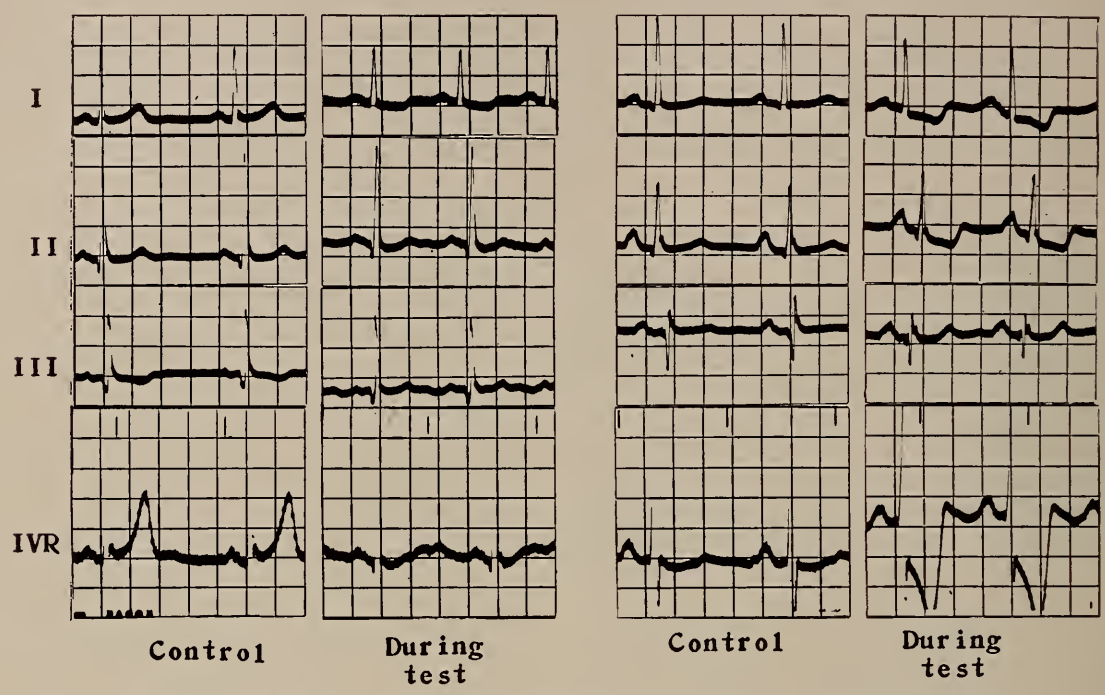


Fig. 1. Electrocardiograms of two patients with anginapectoris taken before and during inhalation of 10 per cent oxygen for fifteen minutes. The electrocardiographic changes observed during the period of anoxia are of a magnitude not seen in patients who have normal coronary circulation and indicate inadequate coronary circulation.

The diagnosis of angina pectoris is based on symptoms and not on physical signs. In 20 to 30 per cent of cases the diagnosis must be made in spite of negative results of cardiac examination, in the absence of any significant abnormality revealed by the electrocardiogram and without any help from roentgenographic examination of the heart.

### Significance of Electrocardiographic Findings

The greatest confusion exists regarding the significance of the electrocardiographic findings in the diagnosis of angina pectoris and coronary sclerosis. In from 20 to 30 per cent of cases of angina pectoris the electrocardiogram is within normal limits. Except for the typical pattern that may follow acute coronary occlusion, there are not any electrocardiographic changes that positively denote coronary disease, nor will lack of changes exclude its presence. Delays in conduction either in the bundle of His or in the bundle branches, or a prolonged Q wave in lead III as described by Pardee, are presumptive but not diagnostic evidence of coronary sclerosis. Inversion of T waves, except those that represent a relic of acute coronary occlusion, cannot be assumed to be the result of chronic insufficiency of the coronary circulation; they are the consequence of associated cardiac pathologic changes, the commonest of which is hypertensive heart disease.

Electrocardiograms taken during attacks of angina pectoris may reveal changes of a certain kind and magnitude which are indicative of an inadequate coronary blood supply.[5,7,8,13,14] When present, these changes strongly corroborate the diagnosis of angina pectoris. Hazards attending the production of an attack of angina pectoris by exercise are too great to warrant employing such a diagnostic procedure in daily practice. Recently Levy and his associates described a test in which a patient under basal conditions breathes 10 per cent oxygen for a period of twenty minutes. If electrocardiographic changes of a certain character and degree are observed at the end of this period, they are considered to give tangible evidence that the coronary circulation is inadequate (Fig. 1). If in addition the procedure provokes a typical anginal seizure this effect may be taken as further evidence of coro-

nary arterial disease. On the other hand, the results of the test frequently are negative in cases in which the clinical evidence of angina pectoris is unmistakable, so that a negative result should not be taken to exclude coronary sclerosis. One of us (A. R. B.) has found the test useful in fortifying the clinical diagnosis of coronary insufficiency in certain doubtful cases. The method demands certainty that the concentration of oxygen breathed is not below 10 per cent, that the procedure be interrupted with the onset of any unfavorable symptoms and that 100 per cent oxygen be available for administration to the patient on a moment's notice. Certain other precautions laid down by Levy and his associates must be observed to avoid provoking serious reactions in the patient.

An evaluation of these several lines of evidence leads to the conclusion that the medical profession will do well to disabuse its mind of the conception that the electrocardiogram can be relied on either to establish or to exclude the diagnosis of coronary sclerosis.

The typical symptoms of acute coronary occlusion are so well known that it is not necessary in this discussion to devote time to their elaboration. A word of warning must be given, however: Unheralded attacks of suffocation in the absence of hypertension, or attacks of substernal or epigastric pain, not to exceed thirty minutes to one hour in length, may indicate the occurrence of coronary occlusion. Under such circumstances occlusion cannot be excluded unless careful electrocardiographic studies are made.

### Painless Coronary Occlusion

Lately much has been written about painless coronary occlusion.[6,9,15] Unless the condition is defined carefully, such descriptions prove misleading. It is well established that two or even three main trunks of the coronary arteries may be found occluded at necropsy without the syndrome of coronary occlusion having occurred during the subject's life, although most of such patients will have suffered with the syndrome of angina pectoris.[4] Moreover, myocardial infarction or fibrosis may be absent in such cases. Likewise, it is well established that chronic infarction resulting from gradual narrowing or gradual closure of a coronary artery is observed frequently in cases in which the clinical history does not include an episode of pain characteristic of acute coronary occlusion. It is not so clearly established, however, that acute myocardial infarction occurs without a fairly characteristic attack of pain, except for the occasional patient who suffers from the equivalent of pain in the form of profound shock or dyspnea.

The limited value of the electrocardiogram in identifying coronary sclerosis or in excluding its presence has been stressed previously. In the diagnosis of acute myocardial infarction the electrocardiogram is often indispensable. It is essential for the internist to be familiar with the $Q_1$, $T_1$ and $Q_3$, $T_3$ patterns characteristic of acute myocardial infarction, late as well as early.[2] He must be cognizant of the changes in the precordial leads that denote this condition. Electrocardiographic evidence is especially important in those instances of acute infarction in which shock and dyspnea replace the typical symptoms of acute coronary thrombosis. It is also essential in the study of those patients about whom one is asked to give an opinion at a time considerably removed from the occurrence of an attack suggesting acute myocardial infarction. In such a case it is often essential before expressing an opinion to procure and observe any electrocardiograms taken soon after the attack. The investigation of a suspected attack of acute coronary closure may require serial electrocardiograms, including tracings obtained by precordial leads.

### Thoracic and Thoraco-abdominal Conditions

*1. Pulmonary Embolism.*—Physicians are accustomed to consider that pulmonary embolism has as its cardinal signs cyanosis and dyspnea.[1] A fairly common picture of acute pulmonary embolism, however, is shock with or without dyspnea, with faintness, pallor, sweating, acceleration of the pulse, a marked fall in blood pressure, vomiting, thoracic pain and sometimes collapse. It is to be observed that many of these features are seen in attacks of acute coronary occlusion. In distinguishing the two conditions, the physician determines whether the patient has any preceding history indicating the existence of coronary disease and gives due weight to the special circumstances under which pulmonary embolism occurs. In at least half of the cases of pulmonary embolism the patient has been subjected to major surgical procedures, especially on some organ in the abdomen. Subsequent to surgical operation, the incidence of pulmonary embolism

TABLE I. ELECTROCARDIOGRAPHIC DIFFERENCES IN ACUTE PULMONARY EMBOLISM AND IN ONE TYPE OF ACUTE CARDIAC INFARCTION

| Type of electrocardiogram characteristic of acute pulmonary embolism | $Q_3T_3$ type of electrocardiogram characteristic of acute infarction of the posterior portion of the left ventricle |
|---|---|
| $S_1$ present and usually prominent | $S_1$ absent or small. Right axis deviation rarely seen but when present $S_1$ is large |
| $S\text{-}T_2$ take-off usually below zero level | $R\text{-}T_2$ usually elevated; rarely iso-electric and never depressed |
| $T_2$ diphasic iso-electric or upright; rarely inverted | $T_2$ usually inverted |
| $Q_3$ pattern seldom present | $Q_3$ pattern usually present |
| $R\text{-}T_3$ occasionally slightly elevated | $R\text{-}T_3$ much elevated as a rule |
| $T_3$ inverted; may be cove-plane | $T_3$ usually inverted with cove-plane contour |
| Leads IV-R or IV-F | |
| S-T level usually unchanged | S-T frequently depressed in first forty-eight hours after acute posterior infarction |
| T wave may be negative or positive | T wave positive |
| Leads $CR_2$ or $CF_2$ | |
| T wave usually negative | T wave positive |

rises after the third postoperative day and reaches its peak about the ninth day. Pulmonary embolism occurs after parturition or after fractures or trauma.

The pain of pulmonary embolism is likely to be less severe than that observed in acute coronary occlusion, is referred more frequently to the lateral thoracic wall and is more likely to be aggravated by the patient's taking a deep breath. Marked dyspnea and cyanosis when present are significant of pulmonary embolism. On physical examination in the early stages of pulmonary embolism engorgement of the cervical veins can be observed, the second pulmonic sound is accentuated noticeably and a systolic murmur and sometimes a thrill can be elicited over the pulmonic region owing to the dilatation of the pulmonary conus. In contrast, the examination of the patient after acute coronary occlusion may reveal little more than the appearance of shock and a fall in blood pressure.

The electrocardiogram may play a decisive role in the differential diagnosis. The electrocardiographic differences between pulmonary embolism and acute infarction of the posterior basal portion of the left ventricle are indicated by electrocardiograms (Fig. 2) and Table I.

2. *Acute Pericarditis.*—It is well known that pericarditis complicates a certain percentage of cases of acute myocardial infarction. But acute pericarditis not related to acute myocardial infarction presents many points of similarity to

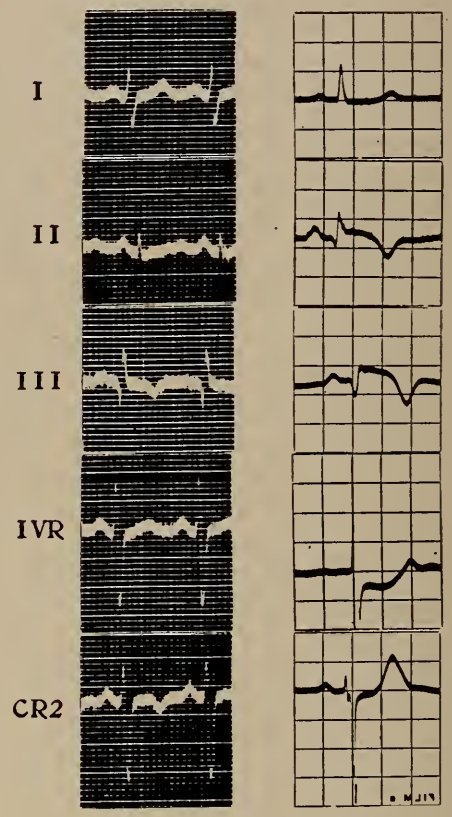


Fig. 2. Electrocardiograms. *a*, Pulmonary embolism; *b*, acute infarction of the posterior basal portion of the left ventricle.

attacks of acute coronary occlusion. We are so "coronary minded" that most of such attacks receive an erroneous diagnosis of acute coronary closure, working a serious injustice on the patient. The decision that a patient has acute coronary occlusion imposes a grave immediate prognosis, a guarded ultimate prognosis, a prolonged convalescence and a permanent modification of the patient's way of living. A diagnosis of acute pericarditis warrants a good prognosis, immediate and remote, a period of convalescence less prolonged on the average than that demanded by acute coronary thrombosis and allows the patient to resume his normal life after recovery from the attack.

TABLE II. DIFFERENTIAL DIAGNOSIS OF ACUTE CORONARY OCCLUSION AND ACUTE PERICARDITIS

| | | Acute Pericarditis | Acute Coronary Occlusion |
|---|---|---|---|
| Age, yrs. | Range | 25–60 | Wide |
| | Average | 36.5 | 56 |
| Infection, recent or concurrent | | Frequent | Unusual |
| Preceding hypertension | | Absent | Frequent (40-80 per cent) |
| Preceding angina pectoris | | Absent | Frequent (25 per cent) |

TABLE III. CHARACTERISTICS OF PAIN IN ACUTE PERICARDITIS AND ACUTE CORONARY OCCLUSION

| | Acute Pericarditis | Acute Coronary Occlusion |
|---|---|---|
| Prodrome | Occasional, vague | Occasionally severe angina |
| Onset | Usually gradual (may be sudden) | Usually sudden |
| Character | Usually mild (may be severe) | Usually very severe |
| Location | Variable; substernal, precordial, epigastric | Usually substernal |
| Extension | Back; sides of chest; tips of shoulders | Frequently arms, throat |
| Duration | Often intermittent for weeks | Usually one severe bout |
| Aggravating factors | Occasional: deep breathing; change of position; swallowing | Indefinite |

## Clinical Features of Acute Pericarditis Among Adult Patients[3]

The age incidence among adult patients who have acute pericarditis covers a wide range but tends to average much lower than for patients who have coronary occlusion. A history of some acute infection, usually in the upper portion of the respiratory tract, is obtained from a majority of patients.

The nature of the pain of acute pericarditis differs in certain particulars from that of acute coronary thrombosis. In general it is less severe. Frequently it is intermittent, with short premonitory paroxysms unrelated to exertion preceding the bout which forces the patient to seek medical care. It rarely radiates and it may be aggravated by deep breathing, by rotation of the trunk or by swallowing.

Febrile reactions of 101° F. or higher are much more likely to occur with infectious pericarditis than with myocardial infarction. If the fever responds rapidly to treatment with sulfonamide drugs it speaks for an infectious basis for the pericardial reaction.

In some cases of infectious pericarditis the cardiac silhouette may be considerably increased in size and if the heart is enlarged hugely it favors the diagnosis of pericarditis rather than that of coronary occlusion. Tables II and III indicate the important points in the differential diagnosis of the two conditions.

Heretofore the electrocardiogram in pericarditis has influenced the physician to make an erroneous diagnosis of acute coronary occlusion more commonly than it has led to the correct diagnosis of pericarditis. The essential characteristics of the electrocardiogram in acute pericarditis are as follows: elevation of the RS-T segment in the standard leads, most commonly in leads I and II, not infrequently also in lead III and seldom with reciprocal depression of S-$T_3$ as is commonly seen in acute infarction of the anterior portion of the left ventricle. This stage is followed by T wave negativity in the standard leads and the tracing is most suggestive of pericarditis when the T wave becomes negative in leads I, II and III. In leads IV-R and IV-F the R wave usually is normal, although in occasional instances it may be absent. When this occurs, difficulty of excluding acute infarction of the anterior portion of the left ventricle is increased. S-T elevation in IV-R and IV-F is common but may be absent in these leads when it is present in the standard leads. Negativity of the T wave in IV-R and IV-F usually occurs and at about the same time as observed in the standard leads. The electrocardiogram of pericarditis in contrast to that of acute myocardial infarction rapidly tends to revert toward normal. $Q_1$ or $Q_3$ patterns are not encountered in the standard leads in acute pericarditis (Fig. 3).

*3. Diaphragmatic Hernia.*—Treacherous shoals await the clinician who in certain cases is called on to distinguish between angina pectoris and diaphragmatic hernia. Harrington's description of the clinical manifestations of the latter is un-

surpassed and is worthy of quotation at length. Of diaphragmatic hernia he wrote:

"At the onset, the attacks are usually mild; they consist of epigastric distress that is projected through to

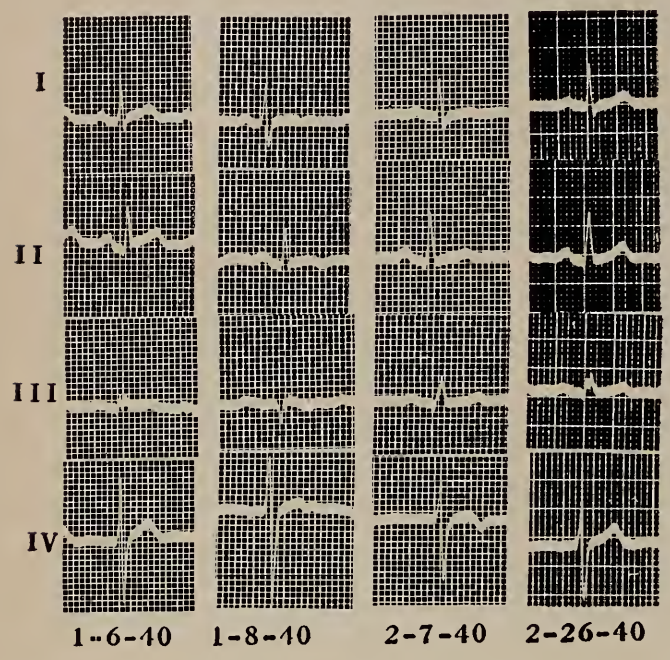


Fig. 3. Electrocardiogram in a case of acute pericarditis. Note the rapid disappearance of significant electrocardiographic changes.

the back and which comes on shortly after a heavy meal; but such attacks may be brought on by taking anything into an empty stomach, such as a cupful of coffee. . . . As more of the stomach becomes incarcerated in the hernia, the attacks become more severe, the pain is projected straight through to the back and to the lower left side of the thorax, is more marked to the left of the spinal column than elsewhere in the back and often appears between the scapulæ. The pain may be agonizing and difficulty is experienced in belching gas and in vomiting because of the spasm of the diaphragm and reflex cardiospasm. . . . Spasm of the diaphragm is commonly associated with referred phrenic pain in the left shoulder which at times may be projected downward into the arm. The increased pressure within the thorax causes cardiac embarrassment, with palpitation and tachycardia. The pressure on the lung and interference with motion of the diaphragm causes dyspnea. These symptoms are augmented when the patient lies down and in more severe instances of the condition it is necessary for the patient to sit up to breathe. The attacks may last for a few minutes to several hours and occasionally they are considered to be caused by coronary sclerosis or by myocardial disease. The attacks usually are completely relieved by vomiting and often recur immediately after food is taken. There is often an interval of weeks or months between attacks —or they may be more or less constant when the stomach is fixed in the thorax by adhesions."

The problem of distinguishing between diaphragmatic hernia and angina pectoris will arise in a limited number of cases. In some of these the distinction will be made with certainty provided a discriminating anamnesis is obtained and adequate laboratory data are available. The following paragraphs present a résumé of the differential features:

1. Primary among the differential features is the factor precipitating the attack. In diaphragmatic hernia this is the ingestion of food. In angina pectoris it is exertion. This distinction cannot be stressed too strongly and when it is defined clearly the diagnosis will be established in the majority of instances. Some confusion may be introduced by the fact that the pain of angina pectoris may be produced most readily by exercise following a meal or, in severe cases, by a heavy meal alone. However, even here, the essential relation of the pain to exertion remains the definitive diagnostic feature.

2. In angina pectoris the pain is relieved by rest. In diaphragmatic hernia, on the contrary, pain frequently occurs most readily at rest, particularly when the patient is in the reclining position. Relief may come when he assumes the erect posture. Vomiting more than any other event is likely to produce relief of symptoms in diaphragmatic hernia.

3. A third distinction relates to the duration of the attacks of pain and the frequency of their recurrence. The pain of diaphragmatic hernia may last for several hours and may recur frequently. In angina pectoris, the pain may recur frequently but it is of brief duration, rarely exceeding fifteen minutes. The pain of acute coronary occlusion may last for several hours, but it is not reasonable to ascribe repeated, prolonged attacks of thoracic pain to repeated attacks of acute myocardial infarction for obviously a patient cannot survive frequent repetition of occlusion.

4. A fourth difference can be found in the duration of the disease. Symptoms of diaphragmatic hernia may be present over a long period of years, a duration rarely encountered with the syndrome of angina pectoris. Moreover, the attacks of pain characterizing diaphragmatic hernia may occur during this period as isolated and fairly widely separated events without any antecedent, concurrent, or succeeding history of a

syndrome of angina pectoris. Were these isolated and widely separated attacks the manifestations of acute coronary occlusion, episodes of angina pectoris would be likely to occur during the intervals.

5. By means of roentgenographic studies the existence of diaphragmatic hernia can be established but that fact has no bearing on the exclusion of coronary disease. The electrocardiogram will be helpful if it gives evidence of previous acute myocardial infarction or if positive electrocardiographic changes result from the anoxia test of Levy. Presumptive but not diagnostic electrocardiographic evidences of coronary sclerosis have been cited previously.

Unfortunately, there are certain cases in which, after the most careful study, the diagnosis remains in doubt. This is in part a natural consequence of the fact that the two diseases sometimes coexist. In general, if a patient known to have a diaphragmatic hernia states that consistently he has severe dyspnea or substernal or epigastric pain on effort, it is not safe to conclude that associated coronary sclerosis can be excluded. If surgical operation is undertaken under these circumstances, the surgeon and the relatives will do well to assume that the risk is increased and they must be prepared to accept the death of the patient from acute heart failure caused by coronary sclerosis.

### Lesions Involving the Organs of the Upper Portion of the Abdomen

Gastric ulcer, and sometimes duodenal ulcer, and attacks of cholecystitis and pancreatitis may cause pain which is referred to the substernal region, to the shoulders and sometimes to the arms. The pain of angina pectoris and of coronary occlusion occasionally is situated more or less exclusively in the region of the upper abdomen. The distinction of disease of the coronary arteries from lesions involving organs of the upper portion of the abdomen has been the topic of many papers and could well furnish a subject for this entire discussion. A brief résumé of important differential characteristics follows:

*Cholecystitis.*—If the colicky pain of cholecystitis extends to the substernal region or to the shoulders and arms it must be distinguished from the pain of acute coronary occlusion. The absence of a history of angina pectoris and the lack of electrocardiographic changes signifying acute myocardial infarction usually will exclude the latter conditions. If the patient has been subject repeatedly to prolonged attacks of colicky pain, it is unreasonable to consider that they represent recurrent attacks of acute coronary occlusion. Lesser attacks of cholecystic pain with occasional extension to the thorax and the shoulders are considered at times to be symptoms of coronary sclerosis and the patient is denied surgical intervention which alone could afford him comfort. This mistake will be avoided largely if in the evaluation of the pain the triad of diagnostic criteria noted earlier in this discussion is applied. It is the relief of such pain erroneously diagnosed as angina pectoris that often has led to unwarranted enthusiasm for the belief that cholecystectomy may cause the symptoms of coronary sclerosis to abate. The problem is further complicated by the fact that in 25 per cent of cases of angina pectoris it has been discovered that gallstones are present. Such being the case, many patients are seen who have symptoms both of angina pectoris and of cholecystic disease. Under these circumstances surgical operation on the gall bladder may have to be considered. In our opinion, when angina pectoris and cholecystic disease coexist, surgical attack on the gall bladder should be undertaken only if the symptoms of cholecystitis are severe or unendurable, if the risk of operation is recognized as considerably increased and if little prospect is held out to the patient that the surgical procedure will relieve him of his angina pectoris.

*Pancreatitis.*—Acute pancreatitis alone or as a complication of cholecystic disease may be suggested by long-continued or frequently recurring biliary attacks, particularly when the pain and tenderness spread to involve the left side of the epigastrium and the left subscapular region. Acute pancreatitis must be distinguished from attacks of acute coronary occlusion in which the pain is located in the upper part of the abdomen. Morphine may fail to relieve either the pain of acute coronary occlusion or that of acute pancreatitis. Shock may be present in both conditions. In pancreatitis the values for blood lipase and amylase rise above normal levels in a few days. Excluding those patients who have preexisting diabetes, concentrations of more than 175 mg. of sugar per 100 c.c. of blood are not

encountered in coronary thrombosis but may be observed in more than half of the cases of acute pancreatitis. If in addition to these differential characteristics a careful study of the electrocardiogram does not reveal evidence of acute myocardial infarction, the diagnosis usually can be made.

*Peptic Ulcer.*—In occasional instances perforating gastric ulcer, and, rarely, perforating duodenal ulcer may produce pain extending into the thorax, the left trapezius ridge and even into one shoulder or both shoulders. Under these circumstances the distinction from acute coronary occlusion must be made. The antecedent history of symptoms suggesting peptic ulcer, the absence of previous evidence of angina pectoris and negative evidence of acute myocardial infarction in the electrocardiogram usually will serve to make the distinction. If the perforation is acute, liberating gastric or duodenal contents into the peritoneal space, rigidity of the upper portion of the abdomen usually develops, indicating that the seat of the trouble is within the abdomen.

## Comment

No cardiac disorder illustrates so well as does coronary disease the fallacy of specialization in heart disease without an extensive acquaintance with the general field of internal medicine. In this brief discussion it is perfectly apparent that coronary disease may infringe upon and have to be distinguished from the diseases affecting numerous adjacent organs. A capacity for obtaining a discriminating history is indispensable in differential diagnosis. Failure to make the differential diagnosis may lead to unwarranted surgical intervention under conditions of great risk, as when the pain of coronary thrombosis is situated in the upper portion of the abdomen; or it may deprive the patient of much needed surgical operation when lesions of the upper portion of the abdomen producing pain referred to the thorax are regarded as cardiac in origin.

Finally, too much stress cannot be laid on the fact that the diagnosis of angina pectoris is based on the history of the symptoms and not on physical examination or laboratory data. If the symptoms of the diagnostic triad of angina pectoris are obtained with great accuracy and interpreted with discrimination, a quandary in the diagnosis of this important syndrome will seldom exist.

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MSMS

### EMERGENCY MEDICAL FIELD SET

A completely equipped emergency medical field set was presented to William R. Torgerson, M.D., chief of the Medical Emergency Service of Kent County at the 1942 annual meeting of the Michigan State Medical Society in Grand Rapids. The presentation was made on behalf of the Medical and Surgical Relief Committee of America by Mrs. Robert H. Denham, chairman of the Women's Auxiliary to the Kent County Medical Society whose members raised the funds for the set. The set consisted of two portable cases containing medicines, surgical instruments, and a lantern with dry cells to supply power for lights in the event that it is necessary for physicians and their helpers to use the equipment during blackouts. The sets were developed as a result of actual experience during the air raids on London.

# Michigan Physicians in Service

THE medical profession of Michigan has again proven its patriotism. Over thirteen hundred of our physicians have enlisted in the armed forces of our country and many more will respond to future calls to service.

Only a physician can realize what it means to a young doctor to postpone or abandon his graduate training, or for an established doctor of medicine to close his office and leave a practice established only by arduous labors.

The physician in service relinquishes his personal liberties. He undergoes a period of hardening and training which has little direct relation to the practice of medicine. He is often divorced from his specialty and willingly renders routine medical services. He goes wherever our soldiers, sailors, marines and aviators are stationed. He unselfishly risks all to bring scientific medicine to our fighting forces. He asks no privileges or favors. He is devoted to the job of maintaining health, relieving suffering and restoring the sick and wounded.

We salute these men. We are proud of them and so is every citizen of our state.

N. H. Cummings

President, Michigan State Medical Society

President's

Page

# EDITORIAL

## PRESIDENT

■ Howard H. Cummings, M.D. of Ann Arbor is President. He assumed office at the meeting in Grand Rapids in September, climaxing a career of leaderships which has extended for many years. He served on many committees, and on the Council, where he was Vice Chairman.

To his efforts and those of a few others we owe the leading position of Michigan in matters of medical economics, plans for circumventing government interference in the private practice of medicine, and providing a method for those of lesser income to care for their catastrophic ills.

His work in postgraduate education and on legislative affairs has been constant and outstanding. He succeeds to the presidency with full knowledge of the problems, and with confidence as to their eventual solution.

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## PRESIDENT-ELECT

■ For the first time in several years the House of Delegates has selected a man from a small town, a general practitioner, to the highest office in the gift of the Society. This is a drift back from an era of over-specialization, and it means that the general man, the small town practitioner is coming back into our consciousness.

Claude R. Keyport, M.D., of Grayling was chosen President-Elect by the House of Delegates of the Michigan State Medical Society in Grand Rapids, September 22, 1942.

Dr. Keyport was born May 14, 1885, in Bay City, educated in the Bay City Public Schools and Detroit College of Medicine (Wayne University), graduating in 1909, served an internship at Harper Hospital, and located at Grayling in 1910, entering practice with the late Stanley N. Insley, M.D.

With the advantage of a splendid personality and natural skill and with a will to excel in his profession, Dr. Keyport steadily rose in the esteem of his community, and soon his skill as a physician and surgeon became known throughout the state. He was Chief of Staff of Grayling Mercy Hospital for twenty-two years, and since January, 1942, has been emeritus chief; and president of the Grayling School Board for fifteen years. He has been a member of the House of Delegates, Michigan State Medical Society for twenty years and delegate to the American Medical Association for ten years. He is a fellow of the American College of Surgeons and has been a member of the State Board of Examiners in Medicine since 1931. He was a Councilor for a term. In College he was Nu Sigma Nu.

Dr. Keyport has been elected to a position of honor and responsibility which will take much time and energy, but a position in which he can show the same type of leadership which brought him this call. His confrères selected a man of trust and experience to lead them through stirring times ahead. We look forward with confidence and assurance to his coming term as President of the Michigan State Medical Society.

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## STANDARD BEARERS

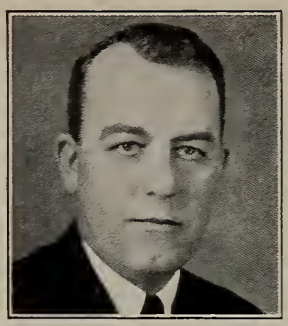
■ The House of Delegates in September reelected the four Councilors whose terms expired: T. E. DeGurse, M.D., of Marine City, W. E. Barstow, M.D., of St. Louis, E. F. Sladek, M.D., of Traverse City, and Roy C. Perkins, M.D., of Bay City. These men have been faithful Councilors, religious in attendance at meetings and in their duties as Councilors, and these duties during the past few years have been many and exacting.

P. L. Ledwidge, M.D., of Detroit, and George H. Southwick, M.D., of Grand Rapids were reelected as Speaker and Vice Speaker. In conducting a very trying meeting with unusual success, they gained in popularity where courage and diplomacy were needed. Dr. Ledwidge covered himself with honor.

Henry A. Luce, M.D., T. K. Gruber, M.D., and Claude R. Keyport, M.D., were reëlected to the American Medical Association House of Delegates and C. S. Gorsline, M.D., C. F. Snapp, M.D., and R. H. Durham, M.D., as alternates. It was a harmonious House which selected our leaders for the coming year.

Claude R. Keyport, M.D.
*Grayling*
President-Elect
Delegate to AMA

A. S. Brunk, M.D.
*Detroit*
Chairman of the Council
Councilor Sixteenth District



Otto C. Beck, M.D.
*Birmingham*
Vice Chairman of the Council
Councilor Fifteenth District

Roy C. Perkins, M.D.
*Bay City*
Chairman Publication Committee
Councilor Tenth District

E. F. Sladek, M.D.
*Traverse City*
Chairman County Societies Committee
Councilor Ninth District

Vernon M. Moore, M.D.
*Grand Rapids*
Chairman Finance Committee
Councilor Fifth District

T. E. De Gurse, M.D.
*Marine City*
Councilor Seventh District

W. E. Barstow, M.D.
*St. Louis*
Councilor Eighth District

O. L. Stryker, M.D.
*Freeport*
Councilor Eleventh District

P. L. Ledwidge, M.D.
*Detroit*
Speaker, House of Delegates

Wilfrid Haughey, M.D.
Acting Editor
Councilor Third District

A. S. Brunk, M.D., of Detroit, was reëlected Chairman of the Council. He is an unusually calm and assured chairman. His services and his well-balanced judgment are again available.

Otto C. Beck, M.D., of Birmingham succeeds himself as Vice Chairman. His counsel

on the Executive Committee has been of rare value.

Roy C. Perkins, M.D., of Bay City is the new Chairman of the Publication Committee. He assumes a new responsibility and adds a new personality to the Executive Committee. Years of experience, sound judgment, shrewd insight and friendly contacts make him a valuable official.

E. F. Sladek, M. D., of Traverse City is retained as an efficient and conscientious Chairman of the County Societies Committee in which positions he has reflected his enthusiasm and ability to serve.

Vernor M. Moore, M.D., of Grand Rapids is retained as "watchdog" of finances. He fits the position perfectly.

The Editor, Major Roy Herbert Holmes, M.D., entered the Army and asked for a leave of absence. Wilfrid Haughey, M.D., of Battle Creek, then Chairman of the Publication Committee, took over the duties. The Council appointed him Acting Editor. He has had previous editorial experience.

O. D. Stryker, M.D., of Fremont has been appointed as Councilor of the Eleventh District to take the place of Major Holmes, resigned.

MSMS Officers at the Grand Rapids Meeting

*(Left to right) Seated*—Col. Henry R. Carstens, M.C., Retiring President; H. H. Cummings, M.D., Ann Arbor, President; C. R. Keyport, M.D., Grayling, President-Elect. *Standing*—A. S. Brunk, M.D., Detroit, Council Chairman; L. Fernald Foster, M.D., Bay City, Secretary; P. L. Ledwidge, M.D., Detroit, Speaker, House of Delegates.

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## MEDICINE IN WAR AND IN THE HOME

▪ Tremendously big Armies and Navies must have large numbers of medical officers, many more than the proportion needed in civilian practice. The numbers required have been placed at six or seven per thousand men. That is nearly five times as many as are needed to take care of the civilian public. Every medical man under the age of forty-five who can pass the physical tests has been called, or will be, and the number is still too small. That will be about 65,000, and about enough for a military establishment of ten million men. The civilian population would then

have to get along on about half the doctors that have been available in recent years. The ratio would be one doctor to about 1,750 people, which is more than most other countries had in prewar times.

Our first job is to win this war, or there will be nothing for us to do of our own free will, and no practice to which to return. Therefore, it is imperative that as many doctors volunteer as are needed. Each individual of us naturally hopes it will be the other fellow who goes, but from experience we can testify that military medical service is not too bad. There are many compensations, and many agreeable contacts and experiences. We have heard of the obstetrician who had 185 cases booked when he was called. There will not be that much obstetrics to be done in the Army, or Navy, but there will be other things, and that doctor will find many useful tasks. It is unfortunate such men have to be called. In the very nature of things it would seem that he would be of vastly more use at home, but Congress and the law made him available by placing him under the Selective Service. That is one of the many sacrifices we all must make. The expectant mothers will grieve, but they will have to depend on some of the older obstetricians, men many times of great experience but advancing years, who would like to "take it easier." That time has gone and we all must serve. The military must be served by the vigorous doctors who can stand the hardships that may come, and the civilian populace by the older men, who must be used with a little consideration, if we are to have them with us for the duration, and the lame and halt who cannot do military service.

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## WAR BONDS

■ We must do our bit in every way to win this war. Money is the prime need of the government. War Bonds are available in small or large denominations and should be bought in as large quantities as each individual can afford. Lending money to the government is, or is not, a sacrifice. But, whether it be or not, it is a duty. The war must be prosecuted. We must furnish guns, tanks, ships, planes, everything the soldier needs to fight with. He is offering his life. We can at least offer some of our money. Ten per cent has been set up as the gauge, but let's make it more, let us make it *enough.*

## DOCTOR BRUCE RETIRES AS U. OF M. VICE PRESIDENT

James Deacon Bruce, M.D., Vice President of the University of Michigan and Chairman of the Department of Postgraduate Medicine, Medical Advisor to the Health Service, Chairman of the Health Sciences Division and Chairman of Extra-Mural Services, was retired October 16 by the Board of Regents of the University with the title of "Vice President Emeritus." Dr. Bruce is seventy years old, the automatic retirement age. No successor was named.

James D. Bruce, M.D.

Dr. Bruce will continue his valuable services as chairman of the Committee on Postgraduate Medical Education of the Michigan State Medical Society.

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## THE CROSS ROADS

■ We are entering an era in the practice of medicine that will have such an enduring effect upon us that no one knows what the outcome may be. We have passed the greatest period of advancement medical science and art have ever seen. This was a period of rugged individualism. Progress was made by individual effort, but in conformity with a code of practice dating to the beginnings of medical time. The past few years have seen a concerted effort to change things, including the methods of private practice. Social science, social trends, political expediency, personal ambition, misunderstanding, have all combined in an effort to make medical and surgical services available to every person, of whatever station in life, at a cost hidden by a government subsidy, charity, or service.

We have struggled to prevent this. Many have been the plans, and untiring the efforts to maintain the time-honored customs, but the change is creeping upon us willy-nilly. Now we are in a great war, and everything is undergoing changes. Totalitarian war means totalitarian ways, methods, services. Nearly half of our doctors are going to see service under regimented conditions, and many of them are going to like and accept it sufficiently to dull their future resistance to the insidious changes gradually being made.

This is a time for leadership of vision. Far-

seeing men should be placed in positions of responsibility and counsel. To place in such positions men swayed by emotion or personal likes and dislikes would be a grave mistake. We are at the cross roads, and we need guidance now as never before, men of sound judgment and feeling of responsibility and that holds for other than medicine, too.

## WAR GASES

■ Will this global war bring War Gases? We hope not. We have seen War Gases and their deadly work—especially their devastating effect on victims. Almost every journal has an article or two about war injuries and war surgery, and gases constitute a large part of the texts. Some months ago we were much worried because of an article about treatment of war gas injuries that took us back to the early days of the last war. Lately the treatment advocated, almost uniformly, is in one form or another that developed when we took care of the first gassed American soldiers.

The Editor was stationed at Base Hospital 36, Vittle, Vosges, France, when a request for ambulances came from Baccarrat. We went to the Field Hospital and brought back 360 cases of gassed eyes, noses and throats. Several weeks before, a delegation of surgeons and internists had been sent to a Gas School to learn how to treat these cases. We had asked to go but practicing eye, ear, nose and throat, were not included. We had 360 very badly gassed patients, eyes swollen shut, very painful, noses plugged and throats constricted. We had never seen anything like it, and knew no treatment except what we could evolve: gas—wash with bicarbonate of soda. Pain, photophobia—rest eyes with atropine. Treatment—an alkaline oil dressing (we used guiacol carbonate in olive oil, because we had it). Two days later Col. George Derby, the chief ophthalmological officer for the A.E.F., came to see the damaged eyes. The English, French and Italians had been treating these eyes for three years and were losing 25 per cent with ulcerated and scarred corneas. We had none. Col. Derby accused us of disobeying orders in treatment, for the Allies had issued a memorandum advising against alkali, atropine and oils. That pamphlet we had not seen, fortunately.

The treatment now advocated for these eyes in practically every paper, and in many journals is: irrigate with 2 per cent bicarbonate of soda, atropine for pain and photophobia, and cod-liver oil for its vitamin A. This treatment applied early will prevent most of the desperate results obtained in the early years of the last war.

## BIDDLE LECTURE

■ For several years the Biddle Lecture has been the outstanding feature of the General Meeting of the Michigan State Medical Society, a formal presentation from an outstanding Medical authority and rewarded by a scroll from the Society.

This year we also had an outstanding man, Col. George F. Lull, Chief of the Personnel division, Surgeon General's office, and his talk was strictly up to date, but owing to rush of war work he could not write a formal paper. The talk was very informative regarding need and place of medical men in the Military, and is abstracted in the War Bulletins pages.

## PROCUREMENT AND ASSIGNMENT

■ The editorial on Procurement and Assignment in a recent JOURNAL was copied in full in *The Journal of the Indiana State Medical Society* for September, with the comment that the topic was so well expressed and so timely it could well be copied verbatim.

## INDUSTRIAL MEDICAL SERVICE

Good medical service to industry is not a thing which medicine alone can supply. Such service could be the result of well-planned and coördinated activity on the part of physicians, their medical societies, hospitals, labor, the state, and the industries themselves, with the colleges as an adjunct. Such service as there is in the State of New York is implemented by the physicians and the hospitals; it should be paid for by more industries as a legitimate production cost; it should be a "social gain" demanded, not obstructed, by labor; it should be encouraged and wisely regulated by the state. Good medical service to industry could be produced and quickly, by a real, well-implemented and unified plan arrived at by the above agencies acting in concert to a definite end. The National Safety Council points out that since Pearl Harbor casualties to the armed forces of the United States have been 4,801 dead, 3,218 wounded, and 36,124 missing, a total of more than 44,000. In the same period

in the ranks of American workers there are 30,000 dead and 2,500,000 wounded—an intolerable, and deadly home front.

Medical service to industry in this state has been and is inadequate and unevenly distributed. It has followed a course of leisurely development. This has left great numbers of small manufacturing plants wholly without medical service of any kind. It has fallen far short of supplying the ordinary needs of industry. Unless something is done and done quickly, it will be unable even remotely to cope with the coming extraordinary needs of industry occasioned by the war. What seems to be imperative is a short-term war program of accelerated planning and action on the part of the agencies involved to produce a tangible result in the conservation of manpower and of man-hours lost to production through preventable accident and illness.

Such an accelerated program is needed now! It is a must. Shall we do it ourselves with the materials and agencies at hand, or shall we pass the buck to Mr. McNutt and the federal government? This is not a matter which, if neglected, if postponed, if deadlocked, will result only in the socialization of medicine; far from it. Medical service to industry is a complex, coördinated, integrated, and interlocking structure in which physicians, hospitals, departments of labor, departments of health and sanitation, departments of education, medical societies, teaching institutions, labor and employers are bound together for a common good. Socialize one element and you must socialize all; federalize one and you must federalize all. For the federal government, responsible for the conduct of the war, must have that conservation of manpower, that necessary acceleration of production through reduction of lost time occasioned by preventable accident and illness which will guarantee continuous output. We are all in it together. The time is now!

Necessarily, some features desirable in a long-range program of medical service to industry may have to be sacrificed to achieve the present objective, for this is an emergency.

Necessarily, debate and argument will have to be curtailed—for talk won't win the war.

We have good doctors in this state. An intensified and accelerated postgraduate teaching program can further instruct them, with the aid of the colleges and the hospitals and the industries.

We have intelligent employers and leaders of labor who as a matter of good business will cooperate if a definite plan for the state is set up at a definite cost.

We have a Department of Education in the state and an excellent school system. Is there any reason why the general health level of the communities should not be raised by a real program of teaching health and sanitation in the schools to be practiced in the home? Could not the Department of Health coöperate in this? The Association of School Physicians? Could not a real attempt be made to discover and rectify remediable physical defects in the younger age group? Immunization be really pushed?

If these things cannot be done, we should like to know why. Are the agencies involved unequal to the task? If so, it's time we found out about it. It is our opinion that plenty of talent exists. It has become accustomed to sit in chairs, to swivel, and talk. All very well in times of peace. Nobody is to be blamed; that is the democratic way.

Now there is war; war needs production; production needs good medical service to industry; industry can pay for it; New York State doctors can furnish it; labor benefits by it; the health level of the communities can be bettered; communicable disease can be kept down; good health habits can be taught; off-time contacts with community and family disease can be reduced—right now, under a unified and accelerated war program.

Does the State of New York need the federal government to solve these domestic problems for it? If so, why? The taxpayers would like to know.—Editorial, *New York State Journal of Medicine,* September, 1942.

## Communication

Station Hospital
Camp Hulen, Texas
October 15, 1942

Dear Wilfrid:

Everything is fine except I am a little under the weather from my last typhoid shot and a cold. No fun but I'm able to work.

Weather is fine now, just like summer at home in Muskegon. Work is interesting but confining.

Best regards to every one. Did you know Major Chenowyth was sent to Ft. Bliss, El Paso, just before I got to San Antonio?

(Signed) Major Roy Herbert Holmes.

# PROCEEDINGS OF THE HOUSE OF DELEGATES—1942

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# MICHIGAN STATE MEDICAL SOCIETY

## Seventy-seventh Annual Session

### PROCEEDINGS OF HOUSE OF DELEGATES
**Pantlind Hotel, Grand Rapids, Michigan**
**September 21-22, 1942**

## Monday Evening Meeting
### September 21, 1942

The first meeting of the 1942 Session of the House of Delegates, Michigan State Medical Society, held in the Ballroom of the Pantlind Hotel, Grand Rapids, Michigan, convened at 9:10 p.m., P. L. Ledwidge, M.D., Detroit, presiding.

THE SPEAKER: The House will please come to order. Is the chairman of the Credentials Committee ready to report?

J. J. O'MEARA, M.D. (Jackson): Gentlemen, I hold 101 votes out of a possible 113, of which 40 per cent are not from any one county. We have a quorum, Mr. Speaker, and I move this be accepted as a roll call.

THE SPEAKER: If there are no objections, the chairman's report will be accepted as the roll call.

### RECORD OF ATTENDANCE

| | COUNTY | DELEGATE | SESSION 1st | 2nd | 3rd |
|---|---|---|---|---|---|
| 1. | Allegan | R. J. Walker | x | x | x |
| 2. | Alpena-Alcona-Presque Isle | E. L. Foley | x | x | — |
| 3. | Barry | Gordon F. Fisher | x | x | — |
| 4. | Bay-Arenac-Iosco | C. L. Hess | x | x | x |
| | | Fred Drummond | x | x | x |
| 5. | Berrien | Donald Thorup | x | x | x |
| 6. | Branch | R. L. Wade | x | x | x |
| 7. | Calhoun | A. T. Hafford | x | x | x |
| | | C. S. Gorsline | x | x | x |
| 8. | Cass | S. L. Loupee | x | x | x |
| 9. | Chippewa-Mackinac | L. M. McBryde | Not | Repres'd | |
| 10. | Clinton | Dean W. Hart | — | x | — |
| 11. | Delta-Schoolcraft | J. J. Walch | x | x | x |
| 12. | Dickinson-Iron | W. H. Alexander | x | x | — |
| 13. | Eaton | Don V. Hargrave | x | x | x |
| 14. | Genesee | D. R. Brasie | x | x | — |
| | | Henry Cook | x | x | x |
| | | R. D. Scott | x | x | x |
| | | J. T. Connell | x | x | — |
| 15. | Gogebic | W. E. Tew | Not | Repres'd | |
| 16. | Grand Traverse-Leelanau-Benzie | Ben B. Bushong | x | — | x |
| 17. | Gratiot-Isabella-Clare | M. G. Becker | x | x | x |
| 18. | Hillsdale | L. W. Day | x | x | x |
| 19. | Houghton-Baraga-Keweenaw | Alfred LaBine | x | x | x |
| 20. | Huron | C. W. Oakes | x | x | x |
| 21. | Ingham | L. G. Christian | x | x | x |
| | | C. F. DeVries | x | x | — |
| | | R. S. Breakey | x | x | — |
| 22. | Ionia-Montcalm | W. L. Bird | x | x | x |
| 23. | Jackson | H. A. Brown | x | x | x |
| | | J. J. O'Meara | x | x | x |
| 24. | Kalamazoo | Louis W. Gerstner | x | x | — |
| | | Sherman Gregg | x | — | — |
| 25. | Kent | G. Howard Southwick | x | x | x |
| | | A. B. Smith | x | x | x |
| | | A. V. Wenger | — | x | x |
| | | Carl F. Snapp | x | x | x |
| | | Daniel DeVries | x | x | x |
| 26. | Lapeer | D. J. O'Brien | x | x | x |
| 27. | Lenawee | M. R. McGarvey | Not | Repres'd | |
| 28. | Livingston | D. C. Stephens | x | x | x |
| 29. | Luce | Henry E. Perry | x | x | x |
| 30. | Macomb | D. Bruce Wiley | x | x | x |
| 31. | Manistee | E. A. Oakes | x | x | x |
| 32. | Marquette-Alger | V. Vandeventer | x | x | — |
| 33. | Mason | W. S. Martin | Not | Repres'd | |
| 34. | Mecosta-Osceola-Lake | Gordon Yeo | x | x | x |
| 35. | Medical Soc. of No. Central Counties | C. R. Keyport | x | x | x |
| 36. | Menominee | H. T. Sethney | — | x | x |
| 37. | Midland | H. H. Gay | x | x | — |
| 38. | Monroe | D. C. Denman | x | x | x |
| 39. | Muskegon | E. N. D'Alcorn | x | x | — |
| | | Leland E. Holly | x | x | — |
| 40. | Newaygo | O. D. Stryker | x | x | x |
| 41. | Northern Michigan | Fred Mayne | — | x | x |
| 42. | Oakland | V. C. Abbott | x | x | x |
| | | Robert H. Baker | x | x | x |
| | | J. E. Church | x | x | x |
| 43. | Oceana | M. G. Wood | Not | Repres'd | |
| 44. | Ontonagon | W. F. Strong | Not | Repres'd | |
| 45. | Ottawa | A. E. Stickley | x | x | x |
| 46. | Saginaw | C. E. Toshach | x | x | x |
| | | L. C. Harvie | x | x | x |
| 47. | St. Clair | W. H. Boughner | x | x | x |
| 48. | St. Joseph | R. A. Springer | x | x | x |
| 49. | Sanilac | R. K. Hart | x | x | x |
| 50. | Shiawassee | I. W. Greene | x | x | x |
| 51. | Tuscola | D. B. Ruskin | x | x | x |
| 52. | Van Buren | Wm. R. Young | x | x | x |
| 53. | Washtenaw | John A. Wessinger | x | x | — |
| | | Dean W. Myers | x | x | — |
| | | Wm. M. Brace | Not | Repres'd | |
| | | Hugh M. Beebe | Not | Repres'd | |
| 54. | Wayne | W. D. Barrett | x | x | x |
| | | G. L. McClellan | x | x | x |
| | | L. G. Morand | x | x | x |
| | | Stanley W. Insley | x | x | x |
| | | Roger V. Walker | x | x | x |
| | | Wm. H. Honor | x | x | x |
| | | Ira G. Downer | x | x | — |
| | | H. W. Plaggemeyer | x | x | x |
| | | V. N. Butler | x | x | x |
| | | Milton A. Darling | x | x | x |
| | | R. A. C. Wollenberg | x | x | — |
| | | T. G. Amos | x | x | x |
| | | Louis J. Gariepy | x | x | x |
| | | W. B. Harm | x | x | x |
| | | C. J. Jentgen | x | x | x |
| | | Ralph H. Bookmyer | x | x | x |
| | | Bruce C. Lockwood | x | x | x |
| | | Glenn L. Coan | x | x | x |
| | | S. A. Flaherty | x | x | — |
| | | Edwin G. Bovill | x | x | x |
| | | Wm. S. Gonne | x | x | x |
| | | R. L. Novy | x | x | — |
| | | Edward M. Vardon | x | x | x |
| | | Edward D. King | x | x | x |
| | | A. V. Forrester | x | x | x |
| | | Andrew H. Bracken | x | x | x |
| | | James M. Kennary | x | x | x |
| | | A. E. Catherwood | x | x | x |
| | | Hazen L. Miller | x | x | x |
| | | David I. Sugar | x | x | x |
| | | E. L. Chapman | x | x | — |
| | | Henry A. Luce | x | x | x |
| | | Harry F. Dibble | x | x | x |
| | | Victor E. Nelson | x | x | x |
| | | A. H. Whittaker | x | x | x |
| | | F. G. Buesser | x | x | x |
| | | L. J. Hirschman | x | x | x |
| | | Chas. E. Dutchess | x | x | x |
| | | C. K. Hasley | x | x | x |
| 55. | Wexford | W. Joe Smith | x | x | x |
| 56. | Speaker | P. L. Ledwidge | x | x | x |
| 57. | Secretary | L. Fernald Foster | x | x | x |

THE SPEAKER: First on our order of business is the appointment of Reference Committees. If you will please turn to page three in your handbooks, those Reference Committees will stand as they are, with these exceptions:

In the Committee on Officers' Reports, C. D. Brooks, M.D., who is unable to be here, will be replaced by Bruce C. Lockwood, M.D.

On Reports of the Council, Joseph Andries, M.D., who is unable to be here, will be replaced by Henry A. Luce, M.D. In place of Frank E. Reeder, M.D., who, I am sorry to say, has been ill, will be A. E. Stickley, M.D.; and in place of Grover C. Penberthy, M.D., will be Charles J. Jentgen, M.D., of Detroit.

On Reports of Standing Committees there is only one change. Charles S. Kennedy, M.D., of Detroit will be replaced by Milton A. Darling, M.D., of Detroit.

On the Committee on Resolutions, A. C. Roche, M.D., of Calumet will be replaced by Alfred LaBine, M.D., of Houghton.

I wish, at this time, also, to appoint the Committee on Press Relations. I might say a word in explanation. In the last couple of years we have had considerable numbers of complaints, both from members of our own Society, and from the press, because at times we have gone into Executive Session and they have been barred from the room. This year we are hoping to avoid any Executive Sessions. In order to do that it is necessary that we have certain regulations on press releases. Therefore, I ask you all to abide by this request: that no releases be given to the press without being first submitted to the Press Relations Committee. This committee will be composed of the following members: Harry Dibble, M.D., Chairman; G. Howard Southwick, M.D., and L. Fernald Foster, M.D.

I will now call on Dr. Southwick to assume the chair.

(G. Howard Southwick, M.D., Grand Rapids, Vice Speaker, assumed the Chair.)

THE VICE SPEAKER: Gentlemen, it is now our privilege to listen to the address of The Speaker of the House of Delegates, P. L. Ledwidge, M.D., of Detroit.

# I. Speaker's Address

THE SPEAKER: Mr. Vice Speaker, and Members of the House of Delegates:

The Speaker's remarks will be brief.

You will note a slight change in our program as compared with last year's, in that. the informal discussion of the first evening has given place to the official opening meeting of the 77th Annual Session of the House of Delegates. This change was made for a specific purpose, namely, to allow time for the Annual Meeting of Michigan Medical Service to be sandwiched in between the second and third meetings of the House.

You are all familiar with the fact that delegates to the State Medical Society are also members of Michigan Medical Service, and as there are no stockholders the members constitute the corporation and elect its governing body. Those of you who were delegates in 1940 and 1941 will recall that in each of those years the Annual Meeting of Michigan Medical Service was held late in the afternoon the day after the session of the House of Delegates had closed. Many of the delegates had gone home, the meetings were very poorly attended, and were on the whole quite unsatisfactory. The annual meeting of an organization serving approximately a half million people is an important event and the above change in time was made to promote a full attendance at this year's meeting.

Just a word about Michigan Medical Service, itself. From the standpoint of the future of the Michigan State Medical Society, as well as the future of the practice of medicine in general, it is undoubtedly the most important item to come before this session of the House of Delegates. Conceived with high purpose after ten years of exhaustive study, and launched under the guidance of men whose qualifications and integrity cannot be questioned, it is now sailing troubled waters; waters made rough perhaps in part by fundamental weaknesses in the plan which should be corrected, but for the most part by misunderstandings amongst ourselves.

With apologies your Speaker will tell a very old story. It is related that one day on the streets of Edinburgh Sir James Barrie bumped against Robert Louis Stevenson. Stevenson gave him a prolonged and unusually dirty look. Barrie, shifting uneasily from one foot to the other, finally remarked, "Well, after all, God made me." "He's getting careless," said Stevenson. Another pause and Barrie inquired, "Do I know you?" "No," replied Stevenson "but let's know each other," and arm in arm they went off to the tavern.

In the words of Robert Louis Stevenson, "Let's know each other." Certainly, we cannot afford to have dissension in our ranks. Can we afford to entirely abandon the idea of Michigan Medical Service, or should we modify it? These are questions that must be answered by this House of Delegates. Let's have frank and friendly discussion right here in open meeting, so that when this 77th session is over, regardless of what decisions shall have been reached, peace and harmony between the various members and groups of members of our splendid State Medical Society shall again prevail.

In conclusion, we have much work to do. To the end that it may be accomplished with a minimum of delay and confusion the Speaker invites your coöperation on the following points:

1. In order that we may constantly have a quorum, and that each question to be decided may have the benefit of your composite judgment, it is requested that all delegates remain in the room throughout the meetings.

2. Will each delegate when asking the privilege of the floor please rise, state his name, and the name of the County Society he represents. This will save time, and will also enable our stenotypist to keep an accurate record of the proceedings of the House.

3. In your discussions try to stick as closely as you reasonably can to the matter under consideration. Please be assured that no attempt will be made to establish precedent on fine points of parliamentary procedure, or to discourage honest discussion by sharp parliamentary practice.

THE VICE SPEAKER: Gentlemen, I am sure you all appreciated the address of The Speaker and that you are perfectly willing to give him your coöperation in those things we see at hand. His address will be referred to the Reference Committee on Officers' Reports.

Dr. Ledwidge will now resume the Chair.

(The Speaker resumed the Chair.)

THE SPEAKER: The next order of business is the President's Address. Inasmuch as Col. Henry R. Carstens, M.C., cannot be here until later, Dr. Foster, our Secretary, will read his address.

# II. President's Address

### INTRODUCTION

To my great regret, I find that it will not be possible for me to be present at the first meeting of the House of Delegates, September 21, 1942, so I must ask to have my address read to the House. I hope, however, that I may arrive on Tuesday.

HENRY R. CARSTENS, M.D., President

### THE ADDRESS

On the occasion of this, the 77th, Annual Meeting of the Michigan State Medical Society, we find a far different situation from that of a year ago. For three quarters of a century your presiding officer has, at the time of his annual address, reviewed the medical activities of the preceding year and discussed the problems of the future. Surely, we have never before, in a single year, seen such a rapidly changing picture in world affairs. A year ago we were well started on the National Defense program. This Fall we are in the midst of a supreme war effort.

Your attention is invited to the comprehensive though succinct committee reports printed in the handbook. They indicate the manifold activities and accomplishments of the year. Time will not permit reviewing the report of each committee; they have all done well and most of them have established amazing records.

You will also note the growth in membership of the Society, now nearing the five thousand mark. An increase for the coming year can hardly be expected. Members who are in military service and whose dues are waived, may affect the financial stability which the Society has enjoyed in recent years. It is possible that some activities may require curtailment, while other projects will require increases in budgetary allowances.

Foremost in our program the past year has been the matter of war effort, especially as it pertains to the physicians and medical practice in Michigan. The Medical Preparedness Committee has met at frequent intervals and studied thoroughly every phase of the problem. Under the chairmanship of our recent past president, P. R. Urmston, M.D. (who was appointed Chairman for Michigan of the Procurement and Assignment Committee by the President of the United States) it has accomplished prodigiously. In this it was greatly aided by the loyal services of the staff of our executive offices.

The Procurement and Assignment Committee has reviewed the qualifications of every doctor of medicine in the state with a view to determining whether his services were essential in his present field or whether he was available for direct participation in the military effort. Dislocation of medical services, especially in the less populous districts of the state, was a major problem. With the help of the Medical Preparedness Committees of the County Societies, this task is progressing to rapid completion. The able and conscientious services of the members of the Medcial Recruitment Board are gratefully acknowledged.

At first the enrollment of physicians in the military service seemed to progress slowly compared to the enrollment at the beginning of World War I. In this connection, due consideration must be given to the fact that over 12,000 doctors in the United States were already commissioned in the Medical Reserve of the Army and the Navy, most of whom had been called to active duty in the years 1940 and 1941. This was a tremendous aid in the training of the large army starting in 1941. Further increases are to come; shortly every available able-bodied physician will be in the military service.

Your attention is particularly invited to the report of The Council which covers the past year's activities with recommendations for the future. One item which may be stressed is the necessity for the medical profession to continue to watch carefully the current tendency toward further centralized control of many human activities, and in particular that of the medical practice. In our present war effort, much of this control is necessary and desirable. Some may be needless and harmful. Every phase needs careful study and consideration.

On behalf of those members now in the military service of the United States may I extend an expression of understanding of the many problems faced by the physician who must remain behind. While there will be an expansion of many medical activities, the number of physicians available to perform them will grow smaller and smaller. The future will be a time of heavy duties for all of us.

And, finally, may I voice my personal appreciation to the officers and Council, to the committees, and every member of the Society for the loyal and conscientious coöperation displayed in the manifold phases of the Society's activities. To all of you, my good wishes in the arduous times to come.

The Speaker: This address will be referred to the Reference Committee on Officers' Reports.

Next we have the President-Elect's Address by Howard H. Cummings, M.D., Ann Arbor.

## III. President-Elect's Address

One year ago as we met in this room, war clouds were appearing on our horizon, but a peace-loving American public still believed that our country would not become involved in a foreign conflict. While diplomats in Washington were engaged in conversations, Japan struck without warning and over night the scene changed.

Today we find the whole world a vast, potential battleground. Casualties, formerly among the fighting forces only, are now being counted by the thousands among the civilian populations of European and Asiatic cities, even though men, women and children hide underground like prairie dogs. Our protective isolation is gone. Distance is erased by fast-flying birds-of-war which come from far distant places to swoop down upon factories, homes, churches and hospitals, destroying within a few minutes the handiwork of man created through the ages. Hostile craft appear on both of our sea coasts. Submarines rise from the deep and sink our vessels without warning. Our men and women are being uprooted from all peace time labors and directed into channels of war. Every phase of American life has been changed, for this is war—total war.

As physicians, our duty to our country is clear. If ten millions of our youngest, strongest and healthiest men are to march against our enemies; if they are to fight in all parts of the world, they will not march or fight alone. For every thousand soldiers in our army, six or seven ablebodied, well-trained physicians, equipped with the knowledge of modern medicine and armed with every means for maintaining health, combatting sickness and attending the injured, will accompany them. With an armamentarium for modern surgery: plasma and blood to combat shock; sera, vaccines, sulfonamides and other useful drugs to prevent infections, the salvage of human life will be the greatest recorded in history. Every red-blooded American physician will want to play his part in this conflict.

For every man at the front many must remain at home to maintain our services, to supply the instruments of war and to protect our home front. Civilian life with its numerous activities must go on. All young, physically-fit physicians are needed for the military services and the older doctors of medicine who were planning on retirement, or slackening their medical activities, must take on an additional load of civilian practice. Many must discard their vacations, hobbies and those periods of well-deserved leisure which they have formerly enjoyed.

In addition to the practice of medicine, physicians must take their place as examiners for the selective service, as members of draft and local appeal boards, and in the emergency medical services in our civilian defense plans. Physicians are needed as teachers in the Red Cross activities; they are needed to replace young teachers called into military service from our medical schools. Our public health services must not be weakened, but rather strengthened, for shifting populations carry with them the hazards of epidemics. The death toll of war must be compensated for by higher birth rates and physicians who play such a vital part in reducing infant and maternal mortality must not slacken their efforts. Let the physicians who must serve their country in their present stations remember that it is as honorable to serve on the home front as on the battle front.

As members of the Michigan State Medical Society we have many obligations to our members in military service. During their absence we must serve their patients, giving the best medical care we are capable of rendering. We must maintain and extend scientific medicine and be prepared to impart our knowledge of new developments to our military members upon their return to civilian practice. Wars furnish the proving grounds for new medical and surgical procedures. The physicians at home must originate the newer methods but our brothers on the firing line must prove their value.

During the past fifteen years, the Michigan State Medical Society has developed and established two outstanding activities. Both have as their objective the wide distribution of the best type of medical and surgical care for all the people of our State.

The first of these activities—Postgraduate Medical Education—is acceptable to every physician in our Society. For years our medical leaders, our teachers and specialists have recognized the need of bringing to their patients and to medical students the newer and better

methods of diagnosis and treatment. However, due to inertia, indifference and lack of time or opportunity, many physicians have rendered antiquated, outmoded, inferior medical services which were taught to them in their medical schools years before. Our Michigan plan of postgraduate medical education makes available and brings to the physician's doorstep, every practical advancement in the science of medicine. The steady growth of this movement bespeaks the great value of the plan, not only to the physician but to the people of the state, whom they serve. Although this plan has been proclaimed the best in the country, it is far from its goal. Stability and progress must be assured and to this end your society has established a foundation for the advancement of postgraduate medical education. Money from your treasury and from a well-known and beloved medical patron has been placed in a fund for this purpose. This is only a nest egg. It is anticipated that wise philanthropists will support this effort and that our own profession will show its appreciation by contributing to it.

The second notable achievement of our State Society is the development and inauguration of Michigan Medical Service. The fundamental idea behind this plan is to provide a means whereby people in the low income group can through small, monthly deductable payments be assured that they will have good medical care for themselves and their families in the event of sickness. The original concept of this plan has never changed in the minds of those into whose hands you placed the gigantic task of developing and managing this service. Circumstances forced your officers to offer, first, protection against the cost of surgical procedures in hospitals. The great fear of the cost of surgical services is today uppermost in the minds of the low income group. However, these same groups of people are now asking for an extension of the plan to include medical conditions treated in hospitals. Gradually through experience and education it is to be expected that our original goal will be reached. Then our contract holders will be willing to set aside enough money to provide for all medical services.

I wish I might say that Michigan Medical Service is acceptable to all of our physicians, but this is not true. Groups have opposed the plan in its entirety; others have been critical of certain features of the plan. Both groups are sincere and honest and from their opposition has come a realization that this project is far from perfect—it has many faults. However, when in two years' time one-half million of our citizens accept a medical security plan, when their representatives find it good, when employers believe it desirable for their employes, there must be some merit in the plan.

The House of Delegates of the Michigan State Medical Society is capable of reviewing all features of Michigan Medical Service. When the proponents and opponents of this plan sit down together and without heat apply constructive criticism and mature judgment to their deliberations, out of their discussions will emerge a Michigan Medical Service acceptable not only to the contract holders, labor and industry, but also to the group rendering the service—all Michigan Physicians. The issue is upon us. Time is short. The world is changing rapidly. Let us demonstrate a spirit of coöperation among our members. Only in this way can we direct this splendid experiment through uncharted regions, fitting it to constantly changing conditions and finally making it worthy of an honorable profession.

Within a few days the Michigan State Medical Society will pass another milestone. With its ranks depleted of our younger men and our reserves reduced, many older men who have served this organization and have stepped off stage must again return to its activities, to serve on committees and fill the gaps left by those members in military service. To conserve tires, money and time fewer and more centralized meetings can be held. Correspondence can replace committee meetings and a well-planned agenda will save much valuable time.

Today our civilization is in great peril. As in the past the medical profession is prepared to give its full strength to winning the war. A long tradition of unselfish service to mankind is inherent in our profession. We will serve our Country; we will march with our soldiers; we will bring every available means of healing and comfort to our fighting forces; we will conserve life and health; we will free our people of the fear of sickness and injury and from any lack of adequate medical care.

THE SPEAKER: Dr. Cummings' address will be referred to the Committee on Officers' Reports.

We will now have the Annual Report of The Council, by A. S. Brunk, M.D., Detroit, chairman of The Council.

# IV. Annual Report of the Council

Mr. Speaker and Members of the House of Delegates:

The Annual Report of The Council for the year 1941-42 appears in the Delegates' Handbook beginning at page 30. As this report was written in July in order that it might appear in print, The Council wishes to submit additional information on matters which it has considered the past two months:

1. *Membership.*—The Membership of the Michigan State Medical Society as of September 18, 1942, totals 4,570, including 213 Military Members who were granted a remission of dues.

2. *Michigan Medical Service.*—The enrollment of Michigan Medical Service was 422,403 as of July 1, 1942. A total of 3,543 doctors of medicine are registered with the corporation to supply service to subscribers. Services have been provided in more than 78,152 cases, and payments in the amount of $2,488,811.-45 have been paid to doctors for these services. More complete data and financial reports will be presented to the members of Michigan Medical Service at its meeting tomorrow (September 22, 1942).

3. *Authorization to Levy Assessments.*—In 1938-1939-1940, and again in 1941, the House of Delegates authorized The Council to levy an assessment of $5.00 on every member of the MSMS, as seemed justified in the opinion of The Council. The Council continues to be gratified at your confidence and is again happy to state that matters were so well arranged by its Finance Committee that no direct assessments were required during the last four years. However, the year 1943 will bring the problem of a greatly diminished paying membership, due to between 1,200 and 1,800 physicians serving in the armed forces with remission of MSMS dues, which may result in a necessary raise in State Society dues or in an assessment on those physicians who remain at home. A recommendation on this subject follows.

4. *Gradual Intrusion of Government in Private Practice of Medicine.*—Trends in government thinking (and action) during war time must be known and met by a vigilant profession if Medicine is to survive untrammeled. The Council invites to your attention, for serious consideration, some of these trends:

*Trend 1:* Health Inventory and Correction of Remedial Defects of All High-School Children. The U. S. Children's Bureau Commission on Children in Wartime recommended "that an effective school health program be developed that will provide thorough diagnostic examinations, *necessary medical care,* and child guidance and health instruction." The principles as expressed in the Commission's resolution are wrong or the resolution as drafted is open to wrong interpretation, and would lead to unsound developments of the school health pro-

gram; a general herding of all high-school children for cursory, incomplete examinations is not effective of good results and therefore not desirable.

*Trend 2:* Governmental Subsidy for Obstetrical Work on wives of out-of-Michigan soldiers stationed in Michigan camps. This recent plan of a governmental bureau must be seriously considered. Rather than permit such an intrusion of government into the private practice of medicine, county societies and individual practitioners must see that obstetrical care and other medical services are given gratuitiously, where necessary, to the wives and families of soldiers, either through the use of existing facilities and charitable agencies, or as the charity of the individual doctor of medicine.

*Trend 3:* Sectarian practitioners and Social Security Act Programs. The House Committee on Appropriations of the U. S. Congress recently gave a gentle "verbal spanking" to the Children's Bureau for failing to utilize the services of sectarian healers (osteopaths and chiropractors, etc.) in connection with Social Security Programs. The statement of the House Committee on Appropriations undoubtedly will lend force to appeals that these sectarian healers have made for permission to participate in public health programs carried out under appropriations authorized by The Congress and supervised by the Children's Bureau. It is possible that the Bureau may create a committee to give consideration to these claims. If Substandard practitioners are permitted to serve recipients of Old Age, Aid to the Blind, Aid to Dependent Children. at the demands of Congress, what harm may not be done to these people?

*Trend 4:* Practice of Medicine by rural health officers. The suggestion that rural health officers "help out during the war emergency" by practicing curative medicine (while continuing to serve as health officers) in those areas where medical enlistments in the Army and Navy are throwing great burdens on the remaining practitioners recently was presented to The Council. Can this be the entering wedge of governmental practice of Medicine?

*Trend 5:* Defense Areas Medically Undefended. The greatest centers of defense in war industry, with ever-increasing populations to serve, are sending the greatest number of medical men into the armed forces. Will the government suddenly discover that "inconsiderate" doctors have left a helpless clientele of war workers without adequate medical service, and then to correct this situation rush in practitioners who are paid by the government? Will the medical profession (thanks to its patriotism) be accused of "falling down"? Will official rules ("emergency medical measures") support the new order so that the medical soldier returning to his practice will find that he must serve his people by taking a governmental job?

Gentlemen, these are some of the trends in wartime, showing the way the wind is blowing. An informed and alert profession, united as one, may survive, if action locally, statewide, and nationally, is taken. The basis for thought and action rests with the individual member, and with his county medical society. A recommendation on this subject follows.

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*Recommendations.*—The Council's first six recommendations are published in the Handbook on pages 39-40. I shall read them, to reinvite them to your attention:

1. That the House of Delegates consider the adoption of a Resolution opposing any scheme leading to a complete compulsory sickness insurance program organized and maintained by the government.

2. That the House of Delegates consider authorizing the MSMS Legislative Committee to coöperate with any reputable organization, association or agency which has as its goal the repeal of that portion of the State Narcotic Act which now places an annual state tax on every physician; the original purpose of the tax (education of laity against use of marihuana) has not been accomplished and the impost represents misrepresentation as well as discriminatory taxation inasmuch as physicians already pay a similar federal licensure fee.

3. That the House of Delegates endorse the efforts of the Michigan State Board of Registration in Medicine to obtain necessary amendments to the Medical Practice Act in the 1943 session of the Michigan Legislature, and that a recommendation be respectfully transmitted to the Board that a total revision of the Act be not attempted at any one time, for obvious reasons.

4. That the House of Delegates consider the adoption of a resolution to encourage Doctors of Medicine—as well as laymen interested in sound medical service fostered through medical education, and particularly of that part of medical education which contemplates the provision of continuing facilities after graduation—to contribute during life and in their wills to the Michigan State Medical Society Foundation for Postgraduate Medical Education.

5. That the House of Delegates seriously consider the matter of the medical profession's delicate public relations when a delegate moves for an Executive Session to discuss a subject of neither grave nor confidential import. Executive sessions are necessary and frequently are an expeditious way of handling a problem but it may not always be necessary to clear the room. In the past. this action has offended some of our members as well as our good friends of the fourth estate.

6. That the House of Delegates give serious consideration to the necessity for a modest raise in State Society dues, in event the war is prolonged beyond 1942, in order to make up the deficiency caused by the remission of dues of over 1,200 military members (military member by December 31, 1942). As in the past, the doctors who remain at home must willingly carry the burdens of the physicians who are able to enter the armed forces of the United States.

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The Council offers these additional recommendations, covering matters presented in this supplementary report:

7. That aggressive action, based on a keen knowledge of all phases of governmental intrusion in the practice of medicine, be instituted by county medical societies and by their individual members, to the end that, by eternal vigilance, the proponents of state medical control shall not be successful in their *wartime* attempts to socialize the practice of medicine.

8. That the House of Delegates reaffirm its authorization to The Council either to levy a capital assessment, or assessments, not to exceed a total of $5.00, or to increase the dues of the State Society for the year 1943 by a sum not to exceed $5.00, in addition to the present annual dues, as seems justified in The Council's considered opinion.

THE SPEAKER: This report will be referred to the Reference Committee on Reports of The Council.

The next is a report of the Delegates to The American Medical Association, Henry A. Luce, M.D., chairman.

## V. Report of Delegates to A.M.A.

HENRY A. LUCE, M.D. (Wayne): Mr. Speaker and Delegates: If you will turn to page forty-one in your Handbooks—this is given as a verbal, supplemental report, at the request of the President—you will see the report which was written immediately after the American Medical Association meeting.

We wish to commend the 216 members of the Michigan State Medical Society who attended the Atlantic City meeting. You will notice also our reference to the new Section on General Practice, which was sponsored last year, and so ably supported by Arch Walls, M.D., from Detroit, and many men throughout the

United States. It was very gratifying to those who had sponsored this resolution, and labored for its establishment as a part of the Session, that the attendance was so good, and that it promises soon to become a regular section of the American Medical Association.

On page 42, you will notice the Distinguished Service Award was granted to Ludvig Hektoen, M.D., of Chicago.

On page 43, an action of the House of Delegates that is of interest to states having pre-payment medical and surgical plans was the approval of the principle of the service basis of payment. There has been considerable argument in the different state societies about whether payment had been recommended by the House of Delegates of the A.M.A. on a cash indemnity basis, or a service indemnity basis. This action by the House of Delegates clears up the point, and it approves the principle of service payment if sponsored by the constituent state service associations, or component medical societies, in accordance with the recommendations of medical service plans previously adopted by the House of Delegates.

Following that, one committee again clarified the stand of the House of Delegates of the A.M.A. in regard to the establishment of medical service plans. At the bottom of page forty-three it gives that very clearly to you.

A very important point came up. and that was in reference to the approval of the activities of the National Physicians Committee for the Extension of Medical Service. This Committee had not always been able to explain itself to certain county societies. They said, "What has the American Medical Association done?" At this meeting of the House of Delegates the approval of the activities of the National Physicians Committee was approved.

We considered House Resolution 7534, introduced in the House of Representatives on September 9, 1942 by Mr. Elliott of Massachusetts. It is a bill to establish a Federal Social Insurance System. In regard to these bills that have to do with Federal Insurance, the American Medical Association is not in a position to take the active part that is necessary, and the National Physicians Committee for the extension of medical service stands between you, and between me, and the encroachment of Federal agencies, by calling your attention to this particular bill, which was just introduced less than two weeks ago, and this bill takes six per cent from the employe and six per cent from the employer to provide a Federal Social Insurance System for hospital insurance.

Those things, as other members of The Council have already told you, are imminent, and constantly being presented. Under this comes the so-called Federal Hospitalization Benefits. All citizens employed would be entitled to those benefits.

In this report of the House of Delegates on pages 41 to 45, you notice nothing was said about this so-called "or else" statement that was given to us by Mr. McNutt. Mr. McNutt spoke before the House of Delegates on two occasions. He spoke on Monday evening in sort of a general assembly in which, in referring to the procurement and assignment—and that has already been well discussed before you—that if the procurement and assignment didn't come through, it was an "or else." In regard to that "or else," before I read his second "or else," which has not been given that publicity in the Detroit Medical News, as a reprint from the *Medical Free Press,* I want to read this that it may go into your records, because there are some parts of the state that do not get the *Detroit Free Press,* and do not get the *Detroit Medical News.*

This was a cartoon in the *Detroit Free Press:* the caption, "Self-appointed Storm Trooper." It depicted Mr. McNutt garbed as a Hitler agent, brandishing a whip, and shaking his fist under the nose of a determined-looking man with a badge titled "U. S. Medical Profession." The editorial likened Mr. McNutt's "or else" ultimatum to a phrase of gangsterdom, a favored edict with the Al Capones, the Goebbels, and the Himmlers. The conclusion:

"Employed toward any group of Americans by a government official, it is not only maladroit but insulting. Used as a threat against members of the medical profession, one of the groups representing the best things in our society, its offensiveness is especially flagrant. Mr. McNutt owes not only the doctors but all Americans an apology for his excursion into the language of Hitlerism. The people of this nation want to be led, not pushed around, Mr. McNutt."

The next morning in the House of Delegates, speaking about general practice, and medical practice in general: this is a point that has not received as much publicity as the first one, in regard to procurement and assignment. I am quoting directly from the typewritten notes taken from his speech. He concludes thus, and I am reading this so it may be a matter of record for the Medical Society Journals:

"Moreover, the success of this program will be reflected in the type of practice which the profession may be expected to resume after the war is over. In boom defense towns such as Radford, Virginia; Charlestown, Indiana; Mobile, Alabama; Rantoul, Sparta, and other areas, there is little hope that a doctor may count on a long and well-established practice. There is money in those towns now, but their economy will certainly sag after the war. We hope it doesn't sag, but if we are frank with ourselves, and if we really look at the situation, we think that it will sag. There is need, there is very definite need, for government assistance to provide clinical equipment, facilities for medical care and otherwise to help in bearing the capital costs of servicing these communities. There is a definite responsibility, however, to man those areas with thoroughly competent physicians. I am not talking politics and I am not talking social theory." Now, notice this next sentence: "I am talking only plain, hard facts when I say it will have to be done, on your basis, I hope, but if not, on another basis."

Some delegates may wish to know what is happening with that suit in Washington against the A.M.A. The United States Courts of Appeal for the District of Columbia have ruled that the practice of medicine is trade and commerce. As trade and commerce, the practice of medicine comes under, and is subject to, provisions of the Anti-Trust Laws.

In April, 1941, in the Federal District Court of Washington, D. C., medical groups were found guilty of criminal conspiracy to restrain trade. On June 16, 1942, this criminal conviction was sustained by a decision of the United States Court of Appeals for the District of Columbia. Attorneys for the medical groups have petitioned for a hearing before the United States Supreme Court. The Supreme Court has not yet granted the hearing. It may, or it may not. If a hearing is denied, the verdict of the Federal District Court, and the verdict of the Court of Appeals will be final. If the hearing is granted. the probabilities are that the findings of the lower court will be sustained.

Mr. Speaker, that includes the parts of the reports of this committee which have not appeared in the Handbook.

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

# VI. New Business

## VI-1. INSIGNIA TO PAST-SPEAKER STRYKER

The next item of business is a very pleasant one. I would like to ask Oscar D. Stryker, M.D., to come to the front of the room. Dr. Stryker, to be twice elected Speaker of the House of Delegates of Michigan State Medical Society is an honor. To perform the duties of that office, with the dignity and distinction you did, does greater honor to yourself and to your profession. On

behalf of your colleagues in medicine, it is my privilege to present to you this emblem as a token of their esteem and affection. May it constantly remind you of a work well done, and may you live long . (Applause.)

O. D. STRYKER, M.D. (Newaygo): Thank you.

# VII. Amendments to Constitution and By-laws

THE SPEAKER: Next on our order of business is proposed amendments to the Constitution and By-Laws.

C. L. HESS, M.D. (Bay): Mr. Speaker, Members of the House of Delegates: I have a few proposed amendments that deal with the Constitution and By-laws, as follows:

### Constitutional Amendments

1. Article III, Section 1

WHEREAS, an amendment to the Constitution is now before the House of Delegates proposing to eliminate "Junior Members" as such from membership in the Michigan State Medical Society by deleting Article 3, Section 3, of the Constitution,

BE IT RESOLVED, contingent upon the deleting of "Junior Members," that Article 3, Section 1, of the Constitution be changed to read as follows:

"Section 1. This Society shall consist of active members, honorary members, associate members, retired members, and members emeritus."

2. Article VII, Section 1

WHEREAS, Article 7, Section 1 of the Constitution refers to the holding of annual meetings instead of annual sessions,

BE IT RESOLVED, that Article 7, Section 1, of the Constitution have the word "meeting" changed to "session" and read as follows:

"Section 1. The Society shall hold an annual session at such time and place and of such duration as the House of Delegates and The Council may determine. This power may be delegated to The Council. Any County Society desiring the annual session shall file an application with the Council sixty days prior to an annual session."

3. Article VII, Sections 2 and 3

WHEREAS, Article 7, Section 2 of the Constitution provides that special meetings of the Society shall be called for general session on the petition of two-thirds of the delegates registered at the previous regular session, and

WHEREAS, at such previous regular session, two delegates may have been registered but only one seated,

BE IT RESOLVED, that Article 7, Section 2, first sentence of the Constitution be changed to read as follows:

"Special meetings of the Society shall be called for general session on the petition of The Council, or by a petition signed by two hundred and fifty members or upon petition of two-thirds of the delegates seated at the previous regular session."

BE IT FURTHER RESOLVED, that Article 7, Section 3, of the Constitution be changed to read as follows:

"Section 3. Special meetings of the House of Delegates shall be called by the Speaker on the petition signed by two-thirds of the Delegates seated at the last regular session of the House."

### By-laws Amendments

4. Chapter 1, Section 3
5. Chapter 1, Section 8
6. Chapter 2, Section 3
7. Chapter 3, Section 2
8. Chapter 3, Section 7 N
9. Chapter 5, Section 9
10. Chapter 6, Section 6
11. Chapter 9, Section 8.

THE SPEAKER: These resolutions will be referred to the Reference Committee on Amendments to the Constitution and By-laws.

At this time, also, I want to refer to that committee the changes to be considered in the Constitution and By-laws, as they are printed on pages 20 and 21 of the Handbook, that were brought up last year. The proposed changes in the Constitution that have just been read will have to go to next year's reference committee.

# VIII. Resolutions

## VIII-1. SPECIAL MEMBERSHIPS

FRED DRUMMOND, M.D. (Bay): Mr. Speaker:

WHEREAS Charles H. Baker, M.D., an active member of Bay County Medical Society, has been in practice for more than fifty years and has maintained a membership in good standing in the State Society for more than twenty-five years, as certified by the Secretary in the letter herewith attached,

BE IT RESOLVED: that Charles H. Baker, M.D., be elected a Member Emeritus of the Michigan Medical State Society.

THE SPEAKER: This resolution will be referred to the Committee on Resolutions.

## VIII-2. FUND FOR EDUCATIONAL PURPOSES

R. A. SPRINGER, M.D. (St. Joseph): Mr. Speaker:

WHEREAS, the practice of Medicine is a noble art, and all its finer aspects, principles, and altruistic purposes should be more and more emphasized (especially during these chaotic times) and perpetuated to posterity for further enhancement, and

WHEREAS, all these purposes, principles, and high ideals *are* enhanced when a son follows in his father's footsteps, and

WHEREAS, it is sometimes found that practitioners of Medicine, while contributing much to the art, are often lacking in ability to accumulate an adequate estate to provide for the continuance of the Medical education of their offspring,

THEREFORE, BE IT RESOLVED, that a fund be established by the Michigan State Medical Society from which a deceased or permanently incapacitated member's children might borrow to complete their education. Such fund to be raised by a contribution of *only* One Dollar ($1.00) per year from each member for as many years *only* as is necessary to establish an adequate fund. A term life insurance policy on the borrower would insure repayment in case of death, the premium on same being paid for by the borrower.

THE SPEAKER: This resolution will go to the Reference Committee on Resolutions.

## VIII-3. RE: MICHIGAN MEDICAL SERVICE

## VIII-3(a). VARDON RESOLUTION NO. 1

EDWARD M. VARDON, M.D. (Wayne): I wish to propose an amendment to Article II of the Articles of Association of the Michigan Medical Service.

ARTICLE II

The purpose or purposes of this corporation are as follows:

To establish, maintain and operate a voluntary non-profit plan whereby complete medical and surgical care is provided at the expense of this corporation to such persons or groups of persons as shall become subscribers to such plan and whose total family income annually is not more than $1,500.00 from all sources, or to single persons without dependents having an income of not more than $1,200.00 annually from all sources, such care to be furnished under written contracts, providing complete definite medical and surgical care, appliances and supplies by licensed and registered Doctors of Medicine in the offices of such doctors, or in hospitals, or in the homes of such subscribers.

To supply to the subscribers to any such plan, as herein limited, such other similar or related benefits, not including hospital service, as the board of directors of this corporation shall designate and as shall have the prior approval of the Commissioner of Insurance of this state as to the character thereof and as to the financial ability of this corporation to carry out its agreements with respect thereto:

To accept charitable or benevolent trust gifts or legacies or devises intended for the benefit of public health or improvement of the health of the people of this state.

To coöperate with any other corporation organized under the provisions of this or any similar act in establishing and operating non-profit medical care plans as herein limited and to contract with such, or other corporations, or agencies, or other associations or persons with reference to the furnishing of medical care in connection with such plans, provided that all such contracts and/or plans of coöperation shall be approved by the said Commissioner of Insurance.

To collect in connection with the operation of the plan statistics and data and to compile reports which may be deemed of value to the community, to the medical profession, and to the furtherance of the plan; to be of assistance in the promotion of such benevolent, scientific, educational, relief and other activities as are considered to be for the best interests of the community in relation to the health and welfare of the people, and to carry out all other purposes and objects of this corporation.

This corporation shall not hereafter sell or offer for sale or renew any plan, contract or policy to be effective in any county in this state in case the proposed plan, contract, policy or renewal has been disapproved by two-thirds of the members in good standing of the local county medical society of that county present at a meeting called and held for that purpose within six months from October 1, 1942.

Provided further, no alternate, amended or modified plan, contract, policy or renewal shall be sold or offered for sale in any county in this state until and unless it be first proposed to the said local county medical society and approved by a majority of the members thereof in good standing present at a meeting held for that purpose within 60 days following submission for approval of the amended plan, contract, policy or renewal.

Medical Care Plans shall be offered, sold and serviced distinct and independent of Hospital Service Plans.

## VIII-3(b). VARDON RESOLUTION NO. 2

EDWARD M. VARDON, M.D. (Wayne): I wish further to offer an amendment to be proposed to Article IV of the Articles of Association of said company.

ARTICLE IV

Membership in this corporation shall be as follows:

The incorporators shall be the first members. They shall elect the first Board of Directors, which directors so elected, shall hold office until the annual meeting of the corporation in September of 1940. Election as director by the incorporators shall make the person so elected a member of the corporation.

From and after the regular meeting of the House of Delegates of the Michigan State Medical Society in September of 1939, all members of the said House of Delegates of the said Michigan State Medical Society shall be members of this corporation and remain such so long as they remain members of said House of Delegates. Thereafter the members of said House of Delegates during each year shall be the only members of this corporation, except that any person chosen as a director shall thereupon become a member and so remain so long as he holds office as director, and except that the Members of the Corporation may elect to membership in the corporation other persons not professionally practicing any healing art, who are residents of this state, such persons never to constitute more than 10 per cent of the total membership of the corporation.

At the annual meeting of the corporation in September of 1943, the members of the corporation shall elect the directors of the corporation as herein provided for a term of one year and annually thereafter. In all elections of directors each member may vote for as many different candidates as there are directors to be elected. Those nominees receiving the highest number of votes cast for the number of directors to be chosen shall be deemed elected, provided that should more than one-third of the directors be thus included from one councilor district, then those of that district receiving the lower number of votes shall be eliminated so that the limitation on the representation of any one councilor district shall not be exceeded.

The corporation shall be organized upon a nonstock basis.

The assets of the corporation are as follows:

Real property, none.

Personal property, none.

The corporation shall be financed as follows:

Each subscriber for medical care of the corporation shall pay therefor such monthly, quarterly, or annual rate as the Board of Directors shall establish.

## VIII-3(c). VARDON RESOLUTION NO. 3

EDWARD M. VARDON, M.D. (Wayne): Proposed amendment to Article V of the Articles of Association of the Michigan Medical Service.

ARTICLE V

Corporate powers of the corporation except as herein otherwise set forth shall be exercised by a Board of Directors of note less than 11 or more than 35 persons as determined by the membership in annual meetings, at least ⅔ of whom shall be Doctors of Medicine duly licensed and registered to practice in Michigan and by a president and vice-president, secretary and treasurer and such other officers as may be provided for by the by-laws of the corporation.

Such Directors from and after the annual meeting in September, 1942, shall be residents of the various councilor districts of the Michigan State Medical Society in which there are individual certificate holders in good standing in those districts 60 days before the annual membership meeting. Such Directors shall be nominated or proposed by the delegates from the councilor district. Not more than ⅓ of the directors shall be elected from one councilor district and they shall not be members of the council or executive committee of the Michigan State Medical Society. The annual meeting of the members of the corporation shall be held in the month of September of each year on a day fixed by the Directors at the office of the corporation in the City of Detroit in said state, or in such other city in said state as the Board of Directors may determine.

The president, vice-president, secretary and treasurer shall be elected by the Board of Directors annually.

No member of the board shall receive any compensation for his services as director, but each may receive his expenses incurred in the performance of the duties of his office.

THE SPEAKER: These resolutions will be referred to the Committee on Resolutions.

W. B. HARM, M.D. (Wayne): Are those resolutions the doctor read all changes in the by-laws of the State Medical Society?

THE SPEAKER: They are resolutions offered here.

W. B. HARM, M.D. (Wayne): For changes in the By-Laws of the State Medical Society?

THE SPEAKER: The Committee on Resolutions will determine that.

## VIII-1. RE: SPECIAL MEMBERSHIPS

W. D. BARRETT, M.D. (Wayne): Mr. Speaker:

The Wayne County Medical Society recommends for Emeritus Membership in the Michigan State Medical Society the following three physicians, all of whom are Honor Members of the Wayne County Medical Society:

*H. B. Garner, M.D.*, born in 1866, graduated from the University of Michigan in 1892.

*J. C. Gibson, M.D.*, born in 1869, graduated from Queens Medical University in 1892.

*David H. O'Donnell*, M.D., born in 1869, graduated from the Michigan College of Medicine and Surgery in 1892.

All three of these gentlemen have distinguished themselves and the profession during many years of loyal and creditable service to the science of medicine and to humanity.

THE SPEAKER: The resolutions will go to the Committee on Resolutions.

R. D. SCOTT, M.D. (Genesee): Mr. Speaker:

The membership of the Genesee County Medical Society wishes to nominate *Dr. Hugh W. Graham*, Mt. Morris, Michigan, to Emeritus membership in the Michigan State Medical Society.

He has practiced medicine in Genesee County for fifty years, joined the State Society in 1905 and has been a member in good standing for more than twenty-five years.

THE SPEAKER: This resolution will go to the Committee on Resolutions.

## VIII-4. RE: HYGEIA

R. S. BREAKEY, M.D. (Ingham): Mr. Speaker,

WHEREAS the War Production Board advises that sick and injured war production workers lose 6,000,000 workdays each month, and,

WHEREAS Donald Nelson, Chairman of the War Production Board, and Paul V. McNutt, Chairman of the War Manpower Commission, and others are urging that every state and community make it their job to take an active part in saving as many of those lost days as possible for the Production Drive and keep the nation's workers on the job and physically fit, and,

WHEREAS The National Research Council is asking the general public to focus its attention on proper food and nutrition for better health defense, and,

WHEREAS there is an urgent need for authentic health information and first aid training in home and factory and among the men in Army camps and Naval stations, and by Red Cross workers, block captains, and civilian defense authorities, and,

WHEREAS thousands of physicians have already left civilian practice to enter the armed forces and by the end of this year more than twenty-five per cent of the active medical profession will be out of general practice, and,

WHEREAS the increased public demand for health information cannot be met alone by the heavily worked physicians who remain in private practice, and,

WHEREAS it remains the responsibility of the medical profession to do its utmost in disseminating to the laity health information and sound advice, and,

WHEREAS in 1921 at the Boston Session of the American Medical Association, the House of Delegates authorized the publication of *Hygeia*, The Health Magazine, which was designed to give sound health information in nontechnical language, to interpret the progress in scientific and preventive medicine, and to discourage the reliance on quacks and the use of patent medicines, and,

WHEREAS there is no other national magazine in the field of health that offers the large amount of authentic health information in lay language, and,

WHEREAS this magazine, under careful scrutiny of the American Medical Association, maintains high professional standards of accuracy in its editorial and advertising policy,

THEREFORE, BE IT RESOLVED that the House of Delegates of the Michigan State Medical Society, in recognition of the great public need for reliable health information and in recognition of the Service that *Hygeia*, The Health Magazine, can perform in terms of industrial, civilian and community health, hereby endorse this magazine, and to this end recommend that officers and members of the county medical societies of the Michigan State Medical Society urge wider recognition of *Hygeia* in their communities.

BE IT FURTHER RESOLVED that we offer full support and complete coöperation to the Woman's Auxiliary to the Michigan State Medical Society and its affiliated units in their efforts to disseminate health information through *Hygeia*, The Health Magazine, and to urge them to introduce *Hygeia* in war industries, Army camps, USO Centers, reception rooms of phy-

sicians and dentists, and among their patients, in homes, schools, teachers' colleges, libraries, parent-teacher organizations, private clubs and other community centers.

BE IT FURTHER RESOLVED that copies of this resolution be sent to the Editor of *Hygeia* at the headquarters of the American Medical Association in Chicago, to the secretaries of other state medical societies, and to the secretary of each component county medical society of the Michigan State Medical Society with the request that this resolution be read at the next stated meeting and similar action taken to coöperate in this health education campaign by widening the distribution of *Hygeia*, The Health Magazine.

THE SPEAKER: This resolution will go to the Reference Committee on Resolutions.

### VII-12. BY-LAWS—CHAPTER 3, SECTION 3

DAVID I. SUGAR, M.D. (Wayne): Mr. Speaker, the Delegates from Wayne County propose that the By-Laws of the Michigan State Medical Society, Chapter III, Section 3, having to do with the House of Delegates be amended by adding the following sentence:

"Any delegate-elect not present to be seated at the hour of call of the first session may be replaced by an accredited alternate next on the list as certified by the Secretary of the County Society involved."

### VIII-5. RE: EMERITUS MEMBERSHIP

DAVID I. SUGAR, M.D. (Wayne): The Delegates from Wayne County recommend for appropriate consideration by the House of Delegates the advisability of making special provision whereby members in good standing who have attained their seventieth year are eligible for Emeritus Membership regardless of other statistical attainments, such as years in practice or years of membership.

THE SPEAKER: These proposals will go to the Reference Committee on Amendments to the Constitution and By-Laws.

### VIII-6. RE: SECTIONS ON GENERAL PRACTICE IN HOSPITALS

R. L. NOVY, M.D. (Wayne): Mr. Speaker,

WHEREAS the Michigan State Medical Society has established a Section on General Practice, and

WHEREAS the American Medical Association has recognized the general practitioners by conducting special sessions for them, and

WHEREAS numerous county medical societies have set up sections on General Practice, and

WHEREAS general practitioners comprise approximately two-thirds of the doctors referring patients to hospitals, and

WHEREAS those in general practice desire an active part in hospital programs, and

WHEREAS this proportion feels the need of a distinct voice in the direction of medical affairs, including medical legislation, and

WHEREAS the general practitioners wish to maintain official recognition before the American public, therefore be it.

RESOLVED that the House of Delegates of the Michigan State Medical Society recommend to all approved hospitals in the State of Michigan the establishment of sections on General Practice as part of their staffs.

THE SPEAKER: This resolution will go to the Committee on Resolutions.

### VIII-1. RE: SPECIAL MEMBERSHIPS

J. J. O'MEARA, M.D. (Jackson): Mr. Speaker, Jackson County would like to recommend the name of J. H. Myers for a membership Emeritus. It would also like to recommend the name of Eryl S. Peterson for a retired membership.

THE SPEAKER: Your report will go to the Resolutions Committee.

### VIII-3(d). CHRISTIAN RESOLUTION

L. G. CHRISTIAN, M.D. (Ingham): Mr. Speaker,

WHEREAS, the A.M.A., a federacy composed of all State Associations and Medical Societies and their constituent County Societies, is the parent organization of all the organized physicians of the United States of America; and

WHEREAS, the House of Delegates of the A.M.A. is the legislative and policy making branch of that organization to which all state and county medical societies look for guidance in all matters of ethics and policy; and

WHEREAS, the House of Delegates of the A.M.A. has in nearly every annual session during the past several years, given mature study and thought to medical service plans, governmental control of medical practice, and similar subjects, and has from time to time adopted certain principles and rules for the guidance of state and country societies in dealing with such subjects, and in 1934 adopted ten principles to be conformed to by any medical service plan, and further additions were made in 1935 and 1938; and

WHEREAS, the House of Delegates of the A.M.A. at Atlantic City, 1942, adopted the following resolution and recommendations of the reference committee on legislation and public relations: "Your reference committee wishes to commend the Medical Society of New Jersey for its laudable efforts to provide medical care for low income groups, but, as far as developing a plan or fostering legislation by the parent organization is concerned, it has been the considered judgment on many previous occasions that plans should originate in local communities, since they have separate and distinct problems and needs."

THEREFORE, BE IT RESOLVED, that the House of Delegates of Michigan State Medical Society approve and adopt as its principle and rule the above resolution as passed by the House of Delegates of AMA, and

BE IT FURTHER RESOLVED, that we instruct the Members of Michigan Medical Service to Introduce and Instruct the Board of Directors to comply with all principles adopted by AMA concerning Medical Service Plans.

THE SPEAKER: This will be referred to the Committee on Resolutions.

### VIII-1. RE: SPECIAL MEMBERSHIPS

DEAN W. MYERS, M.D. (Washtenaw):

The Washtenaw County Medical Society proposes the name of Dr. Jeanne Solis, of Ann Arbor, for Emeritus membership in the Michigan State Medical Society.

THE SPEAKER: This resolution will go to the Committee on Resolutions.

D. C. DENMAN, M.D. (Monroe):

WHEREAS, Silas V. Dusseau, M.D., of Erie, Michigan, has followed his profession in Monroe County for fifty years; and

WHEREAS, Dr. Silas V. Dusseau helped to organize Monroe County Medical Society on November 21, 1895, and has been a member continuously since; and

WHEREAS, Dr. Silas V. Dusseau has maintained high standards of medical practice and professional ethics during his long career, therefore, be it hereby

RESOLVED, that the Monroe County Medical Society now in regular session, on this sixteenth day of June, nineteen hundred and forty-two, recommend to the House of Delegates of the Michigan State Medical Society at its next meeting that they honor Dr. Silas V. Dusseau by electing him a member Emeritus of Michigan State Medical Society.

THE SPEAKER: This resolution will go to the Committee on Resolutions.

## IX. Reports of Standing Committees

### IX-1. LEGISLATIVE COMMITTEE

The next order of business will be the reports of standing committees. First is the Legislative Committee. The report as written in the Handbook will be referred to the Reference Committee on Standing Committees.

### IX-2. DISTRIBUTION OF MEDICAL CARE COMMITTEE

Next is the Committee on Distribution of Medical Care. The report as written in the Handbook will be referred to the Committee on Standing Committees.

### IX-3. JOINT COMMITTEE ON HEALTH EDUCATION

Representatives to the Michigan Joint Committee on Health Education. This report as printed in the Handbook will go to the Committee on Standing Committees.

### IX-4. MEDICAL LEGAL COMMITTEE

The next is the Medical Legal Committee of which S. W. Donaldson, M.D., is Chairman.

S. W. DONALDSON, M.D. (Washtenaw): The report of the Medical Legal Committee you will find on page

fifty-one of the Handbook, and this part is rather short. I want to make a few remarks in addition:

In addition to the cases handled by the Medical Legal Committee we have also supplied information through the MSMS JOURNAL for the benefit of the members at large. We have given to THE JOURNAL regular abstracts of laws pertaining to the practice of Medicine. Practically all letters we have received pertain to belated collections. One was from a hospital superintendent asking advice on reporting venereal infection to the insurance company. Another was from a physician requesting information in regard to furnishing diagnosis on patients treated through Michigan Medical Service. The third was from a physician calling our attention to a publication of an insurance company in regard to selected staff members giving out reports on patients.

During the coming year the Medical Legal Committee expects to continue in an advisory capacity. Advice will be given to those men in Service to retain their malpractice insurance. Men going into service often employ local technicians to take care of their practice. If these men are instructed to take care of their patients then they are liable for his acts. The physician may also become involved in contracts with the local technician and this is a legal matter. Advice will be given to members of the Society in order to prevent repetition of some of the situations that have been the cause of suits brought during the present years. One of these has been the association of groups and clinics on the namiing of their office as a clinic. This the patient to expect the care of a specialist. Most malpractice cases are based on negligence and acts of omission causing injury by acts of the physician's assistant.

It will be urged in the treatment of fractures that x-ray examinations be made. The refusal to have an x-ray is not necessarily contributory on the part of the patient. If the patient refuses an x-ray to determine if a fracture is present such a refusal should be obtained in writing. A physician appearing in court is better armed if his patient has had an x-ray examination than if he has not had one. Contributory negligence cannot be blamed in a malpractice case unless proven. A word of caution for those who desire to interpret their own x-ray films: during the past year we have had a suit brought where a man interpreted his own findings and advised the patient; a subsequent report by a radiologist to another physician to whom the patient had come revealed it as a fracture. It is therefore urged that the physician either wait for the radiology report or consult the radiologist before treatment.

In regard to malpractice, remember that the burden of proof of neglect on the part of the physician rests with the plaintiff and must be proven. Malpractice against a physician first must be proven by an expert, and the expert must be of the same school. That is, the physician cannot be judged by a cultist, chiropractor or osteopath. It will also be advised that any member of the State Society served with a suit or made defendant in a malpractice suit, notify his insurance company immediately and have the attorney appointed by it to defend him, and under no circumstance discuss the case with anyone, even his colleagues, and under no circumstance admit any form of liability.

### IX-5. PREVENTIVE MEDICINE COMMITTEE

THE SPEAKER: This report will be referred to the Reference Committee on Standing Committees.

Next is the report of the Preventive Medicine Committee. The report will go to the Reference Committee on Standing Committees.

### IX-6. CANCER CONTROL COMMITTEE

Next is the Cancer Control Committee. The Handbook report is referred to the Committee on Standing Committees.

### IX-7. MATERNAL HEALTH COMMITTEE

The Maternal Health Committee report, as printed in the Handbook, will go to the same committee.

### IX-8. SYPHILIS CONTROL COMMITTEE

R. S. BREAKEY, M.D. (Ingham): I would like to recommend increased activity of this committee during the coming year, because of a minor epidemic of venereal diseases among people in camp neighborhoods.

THE SPEAKER: That will be added to the report and referred to the Committee on Standing Committees.

### IX-9. TUBERCULOSIS CONTROL COMMITTEE

Next is Tuberculosis Control. This report is referred to the Committee on Standing Committees.

### IX-10. INDUSTRIAL HEALTH COMMITTEE

The Industrial Health Committee report will go to the Reference Committee on Standing Committees.

### IX-11. MENTAL HYGIENE COMMITTEE

HENRY A. LUCE, M.D. (Wayne): We are very much distressed by the absence of practically everything dealing with the subject of mental hygiene or psychiatry on this year's Annual Meeting program.

I am only mentioning this as a matter of record that future program committees may bear it in mind.

THE SPEAKER: The report of the Committee will go to the Reference Committee on Standing Committees.

### IX-12. CHILD WELFARE COMMITTEE

The next committee is the Child Welfare Committee's report which as printed in the Handbook will go to the Reference Committee on Standing Committees.

### IX-13. IODIZED SALT COMMITTEE

Iodized Salt Committee report is referred to the Reference Committee on Standing Committees.

### IX-14. COMMITTEE ON HEART AND DEGENERATIVE DISEASES

This report is referred to the Committee on Standing Committees.

### IX-15. COMMITTEE ON POST GRADUATE MEDICAL EDUCATION

JAMES D. BRUCE, M.D.: I have nothing to add to the report.

THE SPEAKER: The report will go to the Reference Committee on Standing Committees.

### IX-16. COMMITTEE ON PUBLIC RELATIONS

The report, as printed in the Handbook is referred to the Committee on Standing Committees.

### IX-17. COMMITTEE ON ETHICS

The report will go to the Reference Committee on Standing Committees.

## X. Reports of Special Committees

### X-1. COMMITTEE ON NURSES TRAINING SCHOOLS

ELLERY A. OAKES, M.D. (Manistee): Mr. Speaker, I want to add to this report, that since this committee last met, we have had some activity from the State Board of Registration for Nurses, and we are beginning to get some results.

THE SPEAKER: This report will go to the Reference Committee on Special Committees.

### X-2. PRELICENSURE MEDICAL EDUCATION

The next is the Conference Committee on Prelicensure Medical Education reports, which will go to the Reference Committee on Special Committees.

### X-3. RADIO COMMITTEE

The report of the Radio Committee is referred to the Reference Committee on Special Committees.

### X-4. ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

This report will be referred to the Reference Committee on Special Committees.

### X-5. SCIENTIFIC WORK COMMITTEE

THE SECRETARY: Mr. Speaker, according to precedent, the report of the Scientific Work Committee is in the report of The Council.

THE SPEAKER: That will be referred to the Reference Committee on Council Reports.

### X-6. PROFESSIONAL LIAISON COMMITTEE

THE SECRETARY: Mr. Speaker, that committee has no report. There was no meeting of the committee.

### X-7. BEAUMONT MEMORIAL COMMITTEE

This report is referred to the Reference Committee on Special Committees.

### X-8. MEDICAL PREPAREDNESS COMMITTEE

This report is referred to the Reference Committee on Special Committees.

THE SPEAKER: We will recess now until tomorrow morning at ten o'clock.

(The meeting recessed at eleven-fifteen o'clock.)

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## Tuesday Morning Meeting

**September 22, 1942**

The second meeting of the 1942 Session of the House of Delegates, Michigan State Medical Society, convened at 10:25 o'clock, P. L. Ledwidge, M.D., presiding.

THE SPEAKER: The House will please come to order. We will now have the report of the Credentials Committee.

J. J. O'MEARA, M.D. (Jackson): Mr. Speaker, I hold the credentials of seventy-eight members, 40 per cent of whom are not from any one county, which is a quorum.

THE SPEAKER: If there is no objection, the report of the Credentials Chairman will be accepted as the official roll call.

Next on our schedule is unfinished business.

Is there any new business which you wish to present? If not, we will start on the reports of Reference Committees. The first report is from the Reference Committee on Officers' Reports.

## XI. Reports of Reference Committees

### XI-1. ON OFFICERS' REPORTS (I)

CLARENCE E. TOSHACH, M.D. (Saginaw): The Committee on Officers' Reports has reviewed the Speaker's address, and finds it is in agreement with the address as a whole, and I move the Speaker's address be accepted.

CHAS. E. DUTCHESS, M.D. (Wayne): I second the motion.

THE SPEAKER: Is there any discussion? If not, all in favor of the motion say "aye"; opposed. Motion is carried.

### XI-1. ON OFFICERS' REPORTS (II)

CLARENCE E. TOSHACH, M.D. (Saginaw): The President's report has been reviewed by this committee, and also has been approved, so I move that the President's report be accepted as read.

C. S. GORSLINE (Calhoun): I second it.

THE SPEAKER: You have heard the motion. Is there any discussion? If not, all in favor say "aye"; opposed. Carried.

### XI-1. ON OFFICERS REPORTS (III)

CLARENCE E. TOSHACH, M.D. (Saginaw): The report of the President-elect was reviewed and accepted as read, so I move that we accept this as read.

JOHN A. WESSINGER, M.D. (Washtenaw): I second it.

THE SPEAKER: Is there discussion? If not, all in favor say "aye"; opposed. Motion is carried.

### XI-1. ON OFFICERS' REPORTS (V)

CLARENCE E. TOSHACH, M.D., (Saginaw): The reports of the AMA delegates were reviewed, and it was recommended that they be accepted as read. I so move.

R. A. SPRINGER, M.D. (St. Joseph): I second the motion.

THE SPEAKER: You have heard that motion. Is there any discussion? If not, all in favor say "aye"; opposed. Motion is carried.

Next is the report of the Reference Committee on Standing Committees.

### XI-2(a). LEGISLATIVE COMMITTEE (IX-1)

O. D. STRYKER, M.D. (Newaygo): Mr. Speaker, your committee approves the report of the Legislative Committee as contained in the Handbook. I move the acceptance of this report.

A. E. STICKLEY, M.D. (Ottawa): I support this motion.

THE SPEAKER: You have heard this motion. Is there discussion on that report? If not, all in favor of accepting it say "aye"; opposed. Carried.

### XI-2(b). DISTRIBUTION OF MEDICAL CARE (IX-2)

O. D. STRYKER, M.D. (Newaygo): The Committee on Distribution of Medical Care. The committee approves the report of the Committee on the Distribution of Medical Care as contained in the Handbook with reemphasis on paragraph 3, which opposes any lowering of requirements in the field of medical licensure. I move the acceptance of this report.

F. G. BUESSER, M.D. (Wayne): I second it.

THE SPEAKER: Is there any discussion on this? If not, all in favor of this motion say "aye"; opposed. Carried.

### XI-2(c). JOINT COMMITTEE ON HEALTH EDUCATION (IX-3)

O. D. STRYKER, M.D. (Newaygo): The Joint Committee on Health Education. Your committee approves the report of the Joint Committee on Health Education as outlined in the Handbook, and suggests that inasmuch as this committee has a sizable library of sound and silent films available that a list of such films be published in THE JOURNAL of the MSMS. I move the acceptance of this report.

MILTON A. DARLING, M.D. (Wayne): I second this motion.

THE SPEAKER: Is there any discussion of this motion? If not, all in favor say "aye"; opposed. Carried.

### XI-2(d). MEDICAL LEGAL COMMITTEE (IX-4)

O. D. STRYKER, M.D. (Newaygo): Medical Legal Committee. Your committee approves the report of the Medical Legal Committee. We commend the action of the committee in publishing abstracts of laws dealing with medical legal matters in the JOURNAL of the MSMS and suggest a continuance of such program. I move the acceptance of this report.

E. A. OAKES, M.D. (Manistee): I second it.

THE SPEAKER: Is there discussion on this matter? If not, all in favor say "aye"; opposed. Carried.

### XI-2(e). PREVENTIVE MEDICINE COMMITTEE (IX-5)

O. D. STRYKER, M.D. (Newaygo): The Preventive Medicine Committee. Your committee approves the report of the Preventive Medicine Committee as contained in the Handbook. I move the acceptance of this report.

FRED DRUMMOND, M.D. (Bay): I second this motion.

SPEAKER: All in favor say "aye." Carried.

### XI-2(f). CANCER CONTROL COMMITTEE (IX-6)

O. D. STRYKER, M.D. (Newaygo): Cancer Control Committee. Your committee approves the report as contained in the Handbook. I move the acceptance of this report.

A. B. SMITH, M.D. (Kent): I second that motion.

SPEAKER: All in favor say "aye." Carried.

### XI-2(g). MATERNAL HEALTH COMMITTEE (IX-7)

O. D. Stryker, M.D. (Newaygo): Maternal Health Committee. Your committee approves the report of the Maternal Health Committee as contained in the Handbook. I move the acceptance of this report.

S. L. Loupee, M.D. (Cass): I second the motion.

The Speaker: Is there any discussion? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-2(h). MENTAL HYGIENE COMMITTEE (IX-11)

O. D. Stryker, M.D. (Newaygo): Mental Hygiene Committee. Your committee approves the report of the Mental Hygiene Committee as contained in the Handbook and asks that special attention be given to the recommendation in the supplemental report so that more attention may be given to neuro-psychiatric conditions in the planning of future scientific programs. I move the acceptance of this report.

I. W. Greene, M.D. (Shiawassee): I second the motion.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed. Carried.

### XI-2(i). INDUSTRIAL HEALTH COMMITTEE (IX-10)

O. D. Stryker, M.D. (Newaygo): Industrial Health Committee. Your committee approves the report of the Industrial Health Committee as it appears in the Handbook. I move the acceptance of this report.

Gordon Yeo, M.D. (Mecosta): I second the motion.

Speaker: All in favor say "aye." Carried.

### XI-2(j). CHILD WELFARE COMMITTEE (IX-12)

O. D. Stryker, M.D. (Newaygo): Child Welfare Committee. Your committee approves the report of the Child Welfare Committee as contained in the Handbook. I move the acceptance of this report.

C. S. Gorsline, M.D. (Calhoun): I second the motion.

Speaker: All in favor say "aye." Carried.

### XI-2(k). HEART COMMITTEE (IX-14)

O. D. Stryker, M.D. (Newaygo): Heart and Degenerative Diseases. Your committee approves the report of the Committee on Heart and Degenerative Diseases as it is contained in the Handbook. I move the acceptance of this report.

Chas. E. Dutchess, M.D. (Wayne): I second the motion.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed "no." Carried.

### XI-2(l). IODIZED SALT COMMITTEE (IX-13)

O. D. Stryker, M.D. (Newaygo): Iodized Salt Committee. Your committee approves the report of the Iodized Salt Committee as it appears in the Handbook. I move the acceptance of this report.

E. A. Oakes, M.D. (Manistee): I second the motion.

The Speaker: Is there discussion? If not, all in favor say "aye"; opposed. Carried.

### XI-2(m). POSTGRADUATE MEDICAL EDUCATION (IX-15)

O. D. Stryker, M.D. (Newaygo): Postgraduate Medical Education Committee. Your committee approves the report of the Postgraduate Medical Education Committee as contained in the Handbook. I move the acceptance of this report.

I. W. Greene, M.D. (Shiawassee): I second the motion.

The Speaker: Is there discussion? If not, all in favor say "aye"; opposed. Carried.

### XI-2(n). PUBLIC RELATIONS COMMITTEE (IX-16)

O. D. Stryker, M.D. (Newaygo): Public Relations Committee. Your committee approves the report of the Public Relations Committee as it appears in the Handbook. I move the acceptance of this report.

Gordon Yeo, M.D. (Mecosta): I second it.

The Speaker: You have heard the motion. Is there discussion on this one? If not, all in favor say "aye"; opposed. Carried.

### XI-2(o). ETHICS COMMITTEE (IX-17)

O. D. Stryker, M.D. (Newaygo): Committee on Ethics. Your committee approves the report of the Ethics Committee as it appears in the Handbook. I move the acceptance of this report.

Louis J. Gariepy, M.D. (Wayne): I second the motion.

The Speaker: Is there discussion on this one? If not, all in favor say "aye"; opposed. Carried.

### XI-2(p). SYPHILIS CONTROL COMMITTEE (IX-8)

O. D. Stryker, M.D. (Newaygo): Syphilis Control Committee. Your committee approves the report of the Syphilis Control Committee as contained in the Handbook with the recommendation, however, that the committee be asked to reconsider Item 6, which deals with the dispensing of prophylactic kits through drug stores because of the implied latitude of the program. I move the acceptance of this report.

L. J. Hirschman, M.D. (Wayne): Point of information. Does the Chairman refer this back for reconsideration of this paragraph?

O. D. Stryker, M.D. (Newaygo): No, that was not the intent of the committee. It was hoped that the Syphilis Control Committee, in its future meetings, would consider this program a little further. We have no objection to the program as such, but we felt that it should take some very grave consideration of the establishment of such a program. Although we consider the program entirely feasible, we did not feel it should be passed over entirely without some remark being made on it.

Hazen L. Miller, M.D. (Wayne): I second the motion.

The Speaker: If I understand this correctly, then, Mr. Chairman, you are willing in the report of your committee to refer this back for them to use their own judgment in carrying out what you have recommended.

O. D. Stryker, M.D. (Newaygo): That is right.

The Speaker: Is there any discussion on that point? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-2(q). TUBERCULOSIS CONTROL COMMITTEE (IX-9)

O. D. Stryker, M.D. (Newaygo): Tuberculosis Control Committee. Your committee approves the report of the Tuberculosis Committee as it appears in the Handbook, with the exception of paragraph 3 which states that the committee recommended "that the MSMS support the State Health Deparment's case-finding program in which miniature x-ray films are used in sparsely settled counties, colleges and industrial plants," inasmuch as your committee feels that such a program is an infringement upon the rights of private practice. We ask for the deletion of paragraph 3. I move the acceptance of this report.

J. E. Church, M.D. (Oakland): I second the motion.

The Speaker: You have heard the motion that this be accepted with the deletion of paragraph 3. Is there discussion?

The motion was discussed by Drs. Oakes (Manistee),

Loupee, Gerstner, Hasley, Gorsline, the Secretary, Church, Greene, Moore, and Hafford.

GLENN L. COAN, M.D. (Wayne): I move that the report of the committee be amended to omit the deletion of the paragraph in question.

CHAS. E. DUTCHESS, M.D. (Wayne): I second that motion.

THE SPEAKER: Dr. Coan moves that the report of the committee be amended to omit the deletion requested. In other words, to say it in a simple way, it means to accept the report as presented by the original Committee, as written in the Handbook. Is there discussion on this amendment?

All in favor say "aye"; opposed, "no." The motion is carried.

Now the amendment is passed, and we will have to vote on the original motion made by the Reference Committee Chairman, that we accept this report. To clarify that, a "yes" vote on that would be impossible, because it would be illogical. It would simply do away with the amendment. So if you wish to stick by your decision on the amendment, we have to vote "no," on this motion.

GLENN L. COAN, M.D. (Wayne): Mr. Speaker, I rise to a point of order. The amendment was that the Reference Committee's report can now be accepted with the deletion.

THE SPEAKER: Then your Speaker is in error, Dr. Coan. Thank you. We will now vote on the original motion by Dr. Stryker. If you wish to accept it with the deletion, vote "yes."

MEMBERS: As amended.

THE SPEAKER: May the Speaker take time out to quote something from his little book? It might save me some embarrassment. I hope that I can find it. It reads like this:

"Being a good chairman is a large undertaking, and no chairman should neglect to use all the help he can find, because correctness is of first importance with a chairman, and correctness is a matter of fact, and not a matter of conceit." *(Laughter)*

All in favor of the motion say "aye"; opposed, "no." The motion is carried.

O. D. STRYKER, M.D. (Newaygo): Mr. Speaker, I move the acceptance of the report of your Reference Committee as a whole.

L. J. HIRSCHMAN, M.D. (Wayne): I second that.

THE SPEAKER: Dr. Stryker moves that the report of the committee be accepted as a whole. Is there discussion? If not, all in favor say "aye"; opposed. It is passed.

The next will be the report of the Reference Committee on Special Committees.

## XI-3(a). NURSES TRAINING SCHOOLS (X-1)

STANLEY W. INSLEY, M.D. (Wayne): Mr. Speaker, the Reference Committee on Reports of Special Committees begs to report as follows: We recommend the adoption of the Committee on Nurses Training Schools report with the following changes:

Delete the last part of the first paragraph of the report so that paragraph ends with the words "in this state," and eliminate the word "first." The sentence would now read: "The letters that were received indicated that there exists a very acute shortage of good nursing care in this state."

Also, to interpolate in the second paragraph, first line, to read: "that in spite of recent progress in the larger centers with nurses' aide classes," and so forth —still feels that, and so forth.

Mr. Speaker, I move the adoption of this report.

E. A. OAKES, M.D. (Manistee): I second the motion.

THE SPEAKER: Is there discussion on this part of the report? If not, all in favor say "aye"; opposed. It is carried.

## XI-3(b). PRELICENSURE MEDICAL EDUCATION (X-2)

STANLEY W. INSLEY, M.D. (Wayne): Next is the report of the Representatives to the Committee on Prelicensure Medical Education. Your Reference Committee does not feel that sufficient study and planning have been accompanied to permit a clarification of the problems involved and would recommend that this report be placed on file and the committee be continued for further study. I so move, Mr. Speaker.

CHAS E. DUTCHESS, M.D. (Wayne): I second the motion.

THE SPEAKER: Is there discussion? If not, all in favor say "aye"; opposed. The motion is carried.

## XI-3(c). RADIO COMMITTEE (X-3)

STANLEY W. INSLEY, M.D. (Wayne): Report of the Radio Committee. Your Reference Committee recommends the entire report be adopted as it appears in the Handbook. I so move, Mrs. Speaker.

E. A. OAKES, M.D. (Manistee): I second the motion.

THE SPEAKER: Is there discussion on the acceptance of the report of the Radio Committee? If not, all in favor say "aye"; opposed. This motion is carried.

## XI-3(d). WOMAN'S AUXILIARY (X-4)

STANLEY W. INSLEY, M.D. (Wayne): The report of the Advisory Committee to Woman's Auxiliary. Your Reference Committee recommends the adoption of this report as printed in the Handbook.

I so move, Mr. Speaker.

W. B. HARM, M.D. (Wayne): I second this motion.

THE SPEAKER: Is there discussion on this report of the Woman's Auxiliary? If not, all in favor say "aye"; opposed. Carried.

## XI-3(e). BEAUMONT MEMORIAL COMMITTEE (X-7)

STANLEY W. INSLEY, M.D. (Wayne): The report on Beaumont Memorial Committee. Your Reference Committee concurs in the old saying that "brevity is the soul of wit." This report, while brief, is not necessarily witty and we feel no action should be taken on this report at this time with so many other problems to come up for our consideration. I so move, Mr. Speaker.

A. H. WHITTAKER, M.D. (Wayne): I second the motion.

THE SPEAKER: The motion is that no action be taken on the Beaumont Memorial Committee report. Is there discussion on this report? If not, all in favor say "aye"; opposed. It is passed.

## XI-3(f). MEDICAL PREPAREDNESS COMMITTEE (X-8)

STANLEY W. INSLEY, M.D. (Wayne): In the report of Medical Preparedness Committee, your Reference Committee wishes to add the following sentence to paragraph 3: "We understand from recent information received that the Army in recently refusing to issue commissions above the rank of Captain in spite of special training and experience to the 37- and 45-age group, is in contradiction to its past actions and expressions, and is to be protested." We recommend that this entire report with the above addition be adopted and that The Council be instructed to take prompt and suitable action in furtherance to see that these recommendations are carried out. I so move, Mr. Speaker.

O. D. STRYKER, M.D. (Newaygo): I second the motion.

THE SPEAKER: You have heard the motion. Is there discussion? If not, all in favor say "aye"; opposed. Motion is carried.

STANLEY W. INSLEY, M.D. (Wayne): Mr. Speaker,

I move that the complete report of the Reference Committee be adopted in total.

W. B. HARM, M.D. (Wayne): I second the motion.

THE SPEAKER: The motion now is to accept the whole report of this committee. Is there any discussion? If not, all in favor say "aye"; opposed. The motion is carried.

We will have the report of the Reference Committee on Reports of The Council.

## XI-4. ON REPORTS OF THE COUNCIL (IV)

HENRY A. LUCE, M.D. (Wayne): Your Reference Committee has carefully studied the reports of The Council as printed in the Handbook, and wishes to express, on behalf of the medical profession of the State of Michigan, its grateful appreciation of the sacrifice of time and labor as expended by The Council.

It would appear from the report of The Council, that The Council has been in close contact with our medical activities, and at all times has been mindful of the public health and the welfare of the Michigan State Medical Society, including the scientific needs of our members as evidenced by the report of the Committee on Scientific Work, which is incorporated in the Council report. Mr. Speaker, I move the acceptance of that portion of the report.

JAMES M. KENNARY, M.D. (Wayne): I second the motion.

THE SPEAKER: Is there discussion on this motion? The motion is to accept this portion of the report. If not, all in favor say "aye"; opposed. The motion is carried.

HENRY A. LUCE, M.D. (Wayne): Mr. Speaker, in the Handbook are the recommendations from The Council. We have taken those up in order, and your committee approves Recommendations No. 1, 2, 3, 4 and I move their adoption.

LOUIS W. GERSTNER, M.D. (Kalamazoo): I second the motion.

THE SPEAKER: You have heard the motion. Is there discussion on these points? If not, all in favor say "aye"; opposed. They are carried.

HENRY A. LUCE, M.D. (Wayne): We are changing part of Recommendation No. 5, as follows: "It is the opinion of your committee that it is the prerogative of the House of Delegates, after careful deliberation, to make its own determination as to the need and as to the propriety of an Executive Session. The Committee concurs in The Council's recommendation that care be exercised in its usage."

This portion of the Reference Committee's report I move for adoption.

O. D. STRYKER, M.D. (Newaygo): I support it.

THE SPEAKER: You have heard the motion, that this recommendation of The Council be changed to the wording of the Reference Committee. Is there discussion? If not, all in favor say "aye"; opposed. The motion is carried.

HENRY A. LUCE, M.D. (Wayne): Recommendation 6 in your Handbook is covered by Recommendation 8 of the Supplemental Report, which was given last night. Your committee approves this recommendation, Mr. Speaker, I move the adoption of this portion of the report.

A. B. SMITH, M.D. (Kent): I second it.

THE SPEAKER: You have heard the motion. Is there discussion on this?

W. B. HARM, M.D. (Wayne): Does this mean to up the dues $5, or that The Council has the power to raise the dues if it is deemed necessary?

HENRY A. LUCE, M.D. (Wayne): "That the House of Delegates reaffirm its authorization . . ."

It is a reaffirmation of the authorization. It is not a motion to actually increase it. It is leaving it as seems justified in The Council's considered opinion.

THE SPEAKER: The Speaker will add one other word of explanation there. This has been done for the last three or four years, and it is simply asking for that privilege for another year.

HENRY A. LUCE, M.D. (Wayne): That is right, as far as levying the capital assessment is concerned. I will have to refer to the Secretary for a confirmation that it has been allowed to raise the dues.

THE SECRETARY: For the last four years there has been a motion each year before the House giving The Council authority, if it seemed advisable and necessary, to levy an assessment not to exceed $5. The raising of dues was never included in the other resolutions.

Is there further discussion? If not, all in favor of the motion say "aye"; opposed. The motion is carried.

HENRY A. LUCE, M.D. (Wayne): Next is Paragraph 7. Your committee approves this recommendation, and, Mr. Speaker, I move its adoption.

W. B. HARM, M.D. (Wayne): I second it.

THE SPEAKER: You have heard the motion. Is there discussion? If not, all in favor say "aye"; opposed. The motion is carried.

HENRY A. LUCE, M.D. (Wayne): This Reference Committee report is signed by Drs. C. J. Jentgen, A. V. Wenger, A. T. Hafford, A. E. Stickley, and Henry A. Luce.

Mr. Chairman, I move the adoption of the Reference Committee's report as a whole.

L. G. CHRISTIAN, M.D. (Ingham): I support it.

THE SPEAKER: If there is no objection, we will vote on Dr. Luce's motion to accept the report of the committee as a whole.

All in favor say "aye"; opposed. The motion is carried.

## VIII-7. RESOLUTION RE SOCIAL SECURITY EXPANSION

A. B. SMITH, M.D. (Kent): Mr. Speaker, I wish to present a resolution.

WHEREAS, it has been reported that the Social Security Board intends to recommend to The Congress that the Social Security Act be amended to provide hospitalization benefits, in service or in cash, to all insured under the Social Security Act and to provide for additional payroll deductions for the purpose of financing such benefits, and

WHEREAS, this proposed expansion of the Social Security System must be considered as a part of a movement toward complete plans for compulsory sickness insurance and the socialization of all professions and businesses, which principle has been consistently opposed by the medical profession of Michigan for the reason that it would lead inevitably to a lowering of the standards of medical care; therefore, be it

RESOLVED, that the Michigan State Medical Society in session September 21-22, 1942, go on record as being unalterably opposed to any proposal for compulsory insurance of hospitalization or medical services.

THE SPEAKER: This resolution will be referred to the Committee on Council Reports.

## VIII-8. RESOLUTION RE MSMS POST-GRADUATE FOUNDATION

F. G. BUESSER, M.D. (Wayne): Mr. Speaker, here is a resolution regarding the Michigan State Medical Society Foundation for Postgraduate Medical Education.

WHEREAS, Michigan is recognized throughout the country as having developed an outstanding program in postgraduate medical education in the country, and

WHEREAS, this excellent program must be expanded to keep pace with improvements in the swiftly-moving science of Medicine, and

WHEREAS, a perpetuation of this program, so beneficial to a continuation of better health of the public, is most desirable, and

WHEREAS, The House of Delegates of the Michigan State Medical Society in September, 1941, ordered the establishment of a Michigan State Medical Society Foundation for Postgraduate Medical Education, and

WHEREAS, after detailed study of this important matter by The Council of the State Society and its Committee on Postgraduate Medical Education, The Council in June, 1942, executed a Trust Agreement, creating the "Michigan State Medical Society Foundation for Postgraduate Medical Education," and

appropriated an initial sum equivalent to $10,000 to establish this Foundation, and

WHEREAS, one member of our Society has already provided a substantial sum in his will for the purposes of the Foundation; therefore be it

RESOLVED, that all members of our profession and others interested in competent medical service be encouraged to make generous contributions now, as well as in their last testaments, to the "Michigan State Medical Society Foundation for Postgraduate Medical Education," in the interests of Medicine and the public health of this state.

THE SPEAKER: This resolution will be referred to the Committee on Council Reports. Are there any further resolutions?

## VIII-9. RE: NATIONAL PHYSICIANS' COMMITTEE

L. G. CHRISTIAN, M.D. (Ingham): This resolution has to do with the National Physicians' Committee.

WHEREAS, on June 9 in Atlantic City the AMA House of Delegates voted an unqualified endorsement of the National Physicians Committee for the Extension of Medical Service through a resolution reading as follows:

"BE IT RESOLVED, that we register our approval of the activities of the National Physicians Committee for the Extension of Medical Service, commend the Board of Trustees and Management of this institution for the efforts they have made to enlighten the general public in connection with American Medicine's methods, progress and achievements and in pointing out that the public has a vital interest in the final result; and

BE IT FURTHER RESOLVED, that it be declared the policy of this House of Delegates to encourage this effort and similar efforts with identical purposes." And,

WHEREAS, the report of Delegates to American Medical Association contains the following statement:

"It is the considered judgment of those who have reasons to be thought of as having a vision of the future that the NPC is now more needed than ever before and deserves the wholehearted support of all component and constituent medical societies." Therefore,

BE IT RESOLVED, that we, the House of Delegates of MSMS, reaffirm our support of this all-physician institution and recommend that each and every component Society of MSMS coöperate with NPC in its effective efforts dedicated, in the public interest, to preserving for Doctors of Medicine the distribution of Medical Service in the United States.

THE SPEAKER: This resolution will be referred to the Committee on Reports of The Council.

## VIII-10. RE: MEDICAL LEGAL INSURANCE

J. J. O'MEARA, M.D. (Jackson): Mr. Speaker:

WHEREAS:

1. Medical Indemnity Insurance Companies cancel policies when the holder becomes seventy years of age.
2. Many doctors of medicine are still in active practice at that age.
3. Because of our all-out war effort and the sending of our younger men into service, many doctors over seventy years of age are carrying the load of medical care.

BE IT RESOLVED, that this House of Delegates go on record urging all Medical Indemnity Insurance Companies to continue medical protective policies in force as long as the doctor is in active practice.

THE SPEAKER: This resolution will also go to Dr. Luce's Committee.

Are there any further resolutions? If not, we are ready for the report of the Reference Committee on Amendments to Constitution and By-laws.

## XI-5(a). UNFINISHED BUSINESS FROM 1941 HOUSE OF DELEGATES

C. L. HESS, M.D. (Bay): Mr. Speaker, we have first the resolutions to the Constitution as presented last year, shown on page twenty of the Handbook for Delegates. The first amendment to the Constitution:

## XI-5(a). CONSTITUTION, ARTICLE III, SECTION 4.

Amend Article III, Section 4, by adding the following sentence: "Honorary members shall pay no dues to the State Society and shall be without right to vote or hold office in either County or State Society."

C. L. HESS, M.D. (Bay): This is merely an addition to the present Section, and makes more clear the rights of the Honorary Members.

The committee is unanimous in adopting this resolution, and I move that this be adopted.

C. S. GORSLINE, M.D. (Calhoun): I second it.

THE SPEAKER: The motion is to accept this amendment. Is there any debate? If not, all in favor say "aye"; opposed. Carried.

## XI-5(a). CONSTITUTION, ARTICLE IV, SECTION 3

Amend Article IV, Section 3, by adding the following sentence: "The past presidents shall be members at large of the House of Delegates during the first five (5) years of their past presidency with right to vote and hold office."

C. L. HESS, M.D. (Bay): The committee studied this very carefully, and felt that this was probably too long a time for a past President to be a delegate, and I would present the proposed change that the committee recommends:

The past president shall be a member at large of the House of Delegates during the first year of past presidency with right to vote and hold office. During their past presidency all past presidents shall have a right to the floor in the House of Delegates accorded to a regular delegate but not the right to vote.

You can readily see that it was felt the President, who has a certain amount of responsibility during his term of office, and probably has certain policies which he wishes to follow through, and which policies may not have been completed during his term of office, should have the privilege to follow these policies through in the House of Delegates, and by giving him an extra year as a member-at-large in the House of Delegates he has an opportunity to follow them through. It was thought that five years was too long a time for him to carry out his policies. However, if he wishes to have a voice in the House, he would be accorded the right to the floor to discuss various subjects at any time after he was a President, but not the right to vote or hold office after the first year.

The committee is in unanimous agreement on this proposed change, and I move the adoption of this resolution as changed.

JOHN A. WESSINGER, M.D. (Washtenaw): I second it.

THE SPEAKER: Are you ready for the question? All in favor of the motion say "aye"; opposed. The motion is carried.

## XI-5(a). CONSTITUTION, ARTICLE IV, SECTION 5

Amend Article IV, Section 5, by re-arranging the Section, to read as follows: "The House of Delegates shall at the regular annual session, elect the President-elect, a Speaker and Vice Speaker of the House of Delegates, Members of The Council, and such other officers as may be created by the House of Delegates, unless otherwise specified in the Constitution and By-laws. It also shall elect delegates and alternate delegates to the American Medical Association."

C. L. HESS, M.D. (Bay): In the previous section, that is, in the Constitution as it now stands, it speaks about electing officers and delegates to the AMA, and such other officers. The idea was to make clear that delegates to the AMA were not to be considered as officers.

The committee is unanimous in this resolution and recommends its adoption. I so move, Mr. Speaker.

O. D. STRYKER, M.D. (Newaygo): I support it.

THE SPEAKER: I shall entertain the motion. Is there discussion on the motion to accept this amendment? Is there discussion on that point? If not, all in favor say "aye"; opposed. It is carried.

## XI-5(a). CONSTITUTION, ARTICLE X, SECTION 1

C. L. Hess, M.D. (Bay): Amendment No. 4 deals with a clarification of the words "session" and "meeting" which came up last year.

Amend Article X, Section 1, third sentence, by having the word "Session" changed to "Meeting" and read as follows: "A majority of all the members present at that *meeting* shall determine the question and be binding."

C. L. Hess, M.D. (Bay): The committee is in unanimous approval of this resolution, and I move its adoption, Mr. Speaker.

Harry F. Dibble, M.D. (Wayne): I second it.

The Speaker: Is there discussion on this amendment? If not, all in favor say "aye"; opposed. It is carried.

## XI-5(a). CONSTITUTION, ARTICLE III, SECTION 3

Delete Article III, Section 3 (referring to Junior Membership), and re-number subsequent sections in Article III from 4 to 8, to 3 to 7, respectively.

That is the elimination of junior membership, since junior membership is now provided under associate membership.

The committee is in unanimous agreement in this, that it be adopted, and I so move.

A. H. Whittaker, M.D. (Wayne): I support it.

The Speaker: You have heard the motion. Is there discussion? If not, all in favor say "aye"; opposed. The motion is carried.

## XI-5(a). CONSTITUTION, ARTICLE V, SECTION 1

Amend Article V, Section 1, by deleting the fifth and sixth sentences of the Section, which read: "The President, the President-elect, the Secretary, and the Treasurer shall be ex officio members and without right to vote. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with power to vote."

C. L. Hess, M.D. (Bay): Now, there may be confusion as to just what this indicates, and it is well to explain that in a little more detail, and I refer to Chapter 5 of the By-Laws. You remember last year that in the report of the President recommendation was made to change the formation of the Executive Committee, and the resolution was offered in the By-Laws to this effect. Turn to this section of the By-Laws, page one hundred eight, and I will read Section 1 of the By-Laws. (Doctor Hess read Section 1 of the By-Laws.)

Now, as that stands, without considering the Constitution, they form the Executive Committee, and each would have a right to vote, that is, the officers mentioned would have a right to vote in this Executive Committee. However, the Constitution does not permit that, and by deleting these sentences in Section 1 of Article X of the Constitution, which says they shall not have a right to vote, then they will have a right to vote in this Committee.

This was given considerable discussion by the committee, and we had meetings at the dinner last evening, after the meeting last night we burned the midnight oil, and we also had a meeting this morning, and it was the unanimous feeling, after considerable discussion, that the officers certainly have a certain amount of responsibility in the affairs of the society, they would be held responsible by the members, by the public, for what is going on in the society, and if they are given responsibility and liability, they should have authority. As it is at present, the officers have no vote whatever in either the House of Delegates, The Council, or the Executive Committee. It seems unfair to give them liability and responsibility, without giving them voting power. We feel they would have more interest in their work if they had some authority. As it is now, they might be considered ambassadors without portfolio. And to take a man who has been through The Council, through the various chairs, with the authority to vote, and then suddenly put him on the shelf as President, without any voting power whatever, merely permitting him to talk, doesn't seem fair. So the committee was unanimous in adopting this resolution.

I move that the resolution be adopted.

H. W. Plaggmeyer, M.D. (Wayne): I second the motion.

The Speaker: You have heard the motion that this change be made, giving these men voting power. Is there discussion?

The Speaker would like to discuss that for just a second. I would like to say these men do have this interest, because they always come to the meetings. But they do not have a right to vote, and sometimes there is another thing that makes that very useful. If we are short of men for a quorum, they are there, and by simply giving them the right to vote, we are sure of having a quorum.

Is there further discussion? If not, all in favor of the motion say "aye"; opposed. It is carried.

## XI-5(a). BY-LAWS—CHAPTER 1—NEW SECTION 8 (VII-5)

C. L. Hess, M.D. (Bay): Referring to the By-Laws, the amendment as proposed last year, was referred to the committee, and then laid on the table. The question comes up as to whether the Secretary is permitted to present a resolution, and hence that was the reason for referring this, or laying it on the table for consideration this year. After giving that considerable study, a new By-Law was suggested, and the committee is unanimous in the following amendment to the By-Laws which will cover this same point. This refers to Chapter 1, and a new Section, No. 8:

Whereas, Article 3, Sections 6 and 7 of the Constitution state the requirements for retired and Emeritus membership, without specifying the method of transfer or advance certification by the State Secretary,

Be it resolved, that Chapter 1 of the By-Laws have added a new Section which shall read as follows:

"Section 8. Only active members are eligible to retired or Emeritus membership. Transfers shall be by election in the House of Delegates. Requests for transfer shall be accompanied by certification by the secretary of the State Society, as to years of practice and years of membership in good standing. The County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an annual session."

C. L. Hess, M.D. (Bay): You will note there is a slight change in wording from the resolution as presented last year. This is a change of wording but presents essentially the same thought.

The committee recommends the adoption of this resolution. I make that motion, Mr. Speaker.

David I. Sugar, M.D. (Wayne): I second the motion.

The Speaker: You have heard the motion. Is there discussion on this? Does everybody understand it and its purpose? If there is no discussion, all in favor of the motion say "aye"; opposed. The motion is carried.

## XI-5(b). BY-LAWS AMENDMENTS PROPOSED BY 1942 HOUSE OF DELEGATES

C. L. Hess, M.D. (Bay): The next group have to do with the amendments to the By-Laws, the resolutions of which were presented last night.

## XI-5(c). BY-LAWS: CHAPTER 1, SECTION 3 (VII-4)

Whereas, the House of Delegates has voted to discontinue medico-legal protection for members in good standing,

Be it resolved, that the third paragraph of Chapter 1, Section 3, of the By-Laws, be deleted, which reads as follows:

"Members who become reinstated by the payment of back dues shall not be entitled to medico-legal protection for any

professional services rendered during their period of arrears and for which malpractice claims may arise."

BE IT FURTHER RESOLVED, that the third sentence of paragraph four of Chapter 1, Section 3, of the By-Laws have deleted all reference to medico-legal protection and thus be changed to read as follows:

"Such new members shall not be entitled to membership benefits until their election to membership has been duly reported to the State Secretary and such benefits shall not cover any period prior to their becoming members in good standing."

C. L. HESS, M.D. (Bay): Mr. Speaker, I move the adoption of this resolution.

CHAS. E. DUTCHESS, M.D. (Wayne): I second it.

THE SPEAKER: Is there discussion on this motion? If not, all in favor say "aye"; opposed. It is carried.

With apologies to the Chairman of our Reference Committee on Amendments to the Constitution and By-Laws, we will not interrupt his report and call on another committee.

We will now have the report of the Resolutions Committee. Before we start on this, I don't think I need to mention that there is considerable interest in this particular report, and I ask the gentlemen again, when you ask for the privilege of the floor, please rise and state your name, and remember that there are just a few rules of courtesy in the Robert's Rules of Order, one of which is that you will not rise until a man who has the floor has released it; and, the second is, that it is not quite proper for one delegate to speak twice while other delegates who have not spoken want the privilege of the floor. We want every delegate who has something to say to be heard. We want to be fair to every man, and to every idea, so let's be as nice as we can about it.

We will now call for Dr. Catherwood's report.

## XI-6. REFERENCE COMMITTEE ON RESOLUTIONS
## (a) RE: HYGEIA (VIII-4)

A. E. CATHERWOOD, M.D. (Wayne): First was the resolution by Dr. Breakey concerning *Hygeia.* We recommend its adoption.

THE SPEAKER: Wait just a minute. I ask for the pleasure of the House. Dr. Catherwood is very nice, but I know—at least, I think I know—what the delegates want. They want the report on the Michigan Medical Service. That is right, isn't it?

MEMBERS: No.

THE SPEAKER: Get the other things over first?

MEMBERS: Yes.

A. E. CATHERWOOD, M.D. (Wayne): We can go through the rest of it rather quickly, I think.

We recommend the acceptance of this and the adoption of this resolution, with the deletion of the words, "to be recommended to the Secretaries of other State Medical Societies." We feel that this resolution, giving a lot of praise to *Hygeia,* and trying to disseminate *Hygeia* to the readers all over the state, is a very good idea, but we feel that we should not interfere with the other states. So we recommend the adoption, then, with the deletion of the words, "to the Secretaries of other State Medical Societies." I move its adoption.

C. K. HASLEY, M.D. (Wayne): I second the motion.

THE SPEAKER: Is there discussion? The motion is to adopt it as corrected by the Reference Committee. All in favor say "aye"; opposed. It is carried.

## XI-6(b). RE: FUND FOR EDUCATIONAL PURPOSES (VIII-2)

A. E. CATHERWOOD, M.D. (Wayne): This is the resolution from Dr. Springer. Your committee felt that this was a very nice gesture, but in view of the financial situation of the Society, we recommend against its adoption, but ask that it be referred to the Finance Committee of The Council for further consideration at a future date.

HARRY F. DIBBLE, M.D. (Wayne): I second it.

THE SPEAKER: Is there discussion on this motion to refer this matter to The Council? If not, all in favor say "aye"; opposed. Carried.

## XI-6(c). RE: SPECIAL MEMBERSHIPS (VIII-1)

A. E. CATHERWOOD, M.D. (Wayne): The Committee on Resolutions recommends that these members be elected to Emeritus Membership. These have met all the requirements, and have been checked by the State Society:

H. B. Garner, M.D.
J. C. Gibson, M.D.
David H. O'Donnell, M.D.
Hugh W. Graham, M.D.
Silas V. Dusseau, M.D.
Jeanne Solis, M.D.
Charles H. Baker, M.D.

The committee moves their adoption.

THE SPEAKER: Is there a second to this motion?

C. L. HESS, M.D. (Bay): I second the motion.

THE SPEAKER: Is there discussion on this motion? If not, all those in favor say "aye"; opposed. It is carried.

A. E. CATHERWOOD, M.D. (Wayne): There are two more men's names listed for Emeritus and Retired Membership:

The Jackson County Medical Society, concerning the appointment or the placing of Eryl S. Peterson on the Honorary or Retired Membership.

The committee recommends the adoption of this.

L. G. CHRISTIAN, M.D. (Ingham): I second it.

THE SPEAKER: All in favor of this recommendation say "aye"; opposed. Carried.

A. E. CATHERWOOD, M.D. (Wayne): This one is for J. H. Myers, M.D., and on checking it, it was found that this man is not eligible for membership as proposed. We will recommend against its adoption.

THE SPEAKER: Is there a second to this motion?

E. A. OAKES, M.D. (Manistee): I second it.

THE SPEAKER: All in favor say "aye"; opposed. Carried.

## XI-6(d). RE: SECTIONS ON GENERAL PRACTICE IN HOSPITALS (VIII-6)

A. E. CATHERWOOD, M.D. (Wayne): On the motion by Dr. Novy concerning the establishment of a General Practice Section, the Reference Committee on Resolutions recommends the acceptance and adoption of this report.

W. D. BARRETT, M.D. (Wayne): I second the motion.

THE SPEAKER: Is there discussion on this motion? All in favor say "aye"; opposed. Carried.

## XI-6(e). RE: MICHIGAN MEDICAL SERVICE

A. E. CATHERWOOD, M.D. (Wayne): Now comes Michigan Medical Service.

L. J. HIRSCHMAN, M.D. (Wayne): I think this is a terribly important thing, and we will want to spend a lot of time on it. It is now twelve forty-five. I wonder if the House would like to recess for thirty minutes and get a little refreshment, and then spend the rest of the afternoon on this particular subject. I move we recess for thirty minutes, and may I also add to my motion that we then go into Executive Session at the end of that time to discuss this particular subject?

R. A. SPRINGER, M.D. (St. Joseph): I second the motion.

THE SPEAKER: The Chair does not wish to accept that as one motion. Those are two points. The first motion, Dr. Hirschman, is that we recess for thirty minutes.

R. A. C. WOLLENBERG, M.D. (Wayne): I second that motion.

THE SPEAKER: Is there discussion on this motion, that we recess for thirty minutes, and then reconvene and discuss this problem?

HENRY COOK, M.D. (Genesee): If this House is to take any action on Michigan Medical Service, which I question in the form in which those resolutions were presented by Dr. Vardon, it is entirely unfair to the consideration of the proposition, regardless of your viewpoint, that we shall take up in thirty minutes something which has been proposed that we discuss all afternoon, when this House is expected to go into a session on Michigan Medical Service in an hour and fifteen minutes. There is your situation. Now, I have no desire to prolong the discussion. There are certain of us who wish to present our views and feelings in regard to Michigan Medical Service. It will certainly be ridiculous and foolish for this House to express an opinion to the Michigan Medical Service Corporation six hours after they adjourn, and your action and your consideration would purely be a waste of time, and I am sure that we would not—we who might wish to present anything to you—wish to waste your time.

THE SPEAKER: To clarify that point, may the Speaker ask Dr. Hirschman if that was his intention?

L. J. HIRSCHMAN, M.D. (Wayne): No sir.

THE SPEAKER: Will you please state your motion once more the way you intend it?

L. J. HIRSCHMAN, M.D. (Wayne): In explanation, I can stay here without nourishment as long as anybody can. But I have an idea we all want to have our minds clear, and we don't want to be suffering from fatigue. Some of us sat here all morning. My idea was to recess for thirty minutes, get a little nourishment, and come back and discuss this, and if Michigan Medical Service can't meet at one o'clock, let them meet at two, or three, or four. It was my idea that we discuss it fully, and carry it all afternoon, if necessary.

HENRY COOK, M.D. (Genesee): That is all right with me.

THE SPEAKER: Dr. Cook, just a minute, please.

Will the stenotypist type that motion as intended, that we recess for thirty minutes, and reconvene and discuss this question all afternoon, or as long as it is necessary? Is that right, Dr. Hirschman?

L. J. HIRSCHMAN, M.D. (Wayne): Yes sir.

THE SPEAKER: Is that your understanding of it, Dr. Wollenberg?

R. A. C. WOLLENBERG, M.D. (Wayne): Yes sir.

THE SPEAKER: And that will stand that way.

HENRY COOK, M.D. (Genesee): I would like to make an amendment to that motion.

S. L. LOUPEE, M.D. (Mass): I rise to a point of order. A question to recess is not debatable. It has already been made and seconded, and it should be voted upon without delay. Do we recess or don't we? Let's vote on the question.

HENRY COOK, M.D. (Genesee): Mr. Speaker—

THE SPEAKER: Just a minute, Dr. Cook. The Speaker will take exception to that. When we vote to recess to a definite time it does not have preference. I believe I am right. I am open to correction if I am wrong.

STANLEY W. INSLEY, M.D. (Wayne): Mr. Speaker, may I ask a question of the proper authorities? If we return with long arguments, and the Michigan Medical Service meeting is not convened at two o'clock, does that become illegal? I think corporations send out a call for an annual meeting at a certain time, and a certain date, and that date and time has to be met.

THE SPEAKER: Just one moment; Dr. Insley has asked a question. The Speaker cannot answer it. If there is anyone here who can answer it, we will be glad to hear from him. The question is, inasmuch as the Michigan Medical Service has called a meeting for a specific hour, is it legal for us to postpone it? Is that your question, Dr. Insley?

STANLEY W. INSLEY, M.D. (Wayne): Yes sir.

THE SPEAKER: If anyone can answer it, I will welcome an answer.

L. J. HIRSCHMAN, M.D. (Wayne): The Speaker is quite correct, but if the quorum is present the meeting will not be delayed. But if there is not a quorum, the meeting will be delayed.

HENRY COOK, M.D. (Genesee): I was just going to ask that this House request the Michigan Medical Service not to act until they have completed their deliberations. I think it is quite in agreement with what Dr. Hirschman had in mind. The only question is on parliamentary rules, so we can meet, and tell them what we have to say.

THE SPEAKER: Question, Dr. Cook. Do you refer to deliberations on this particular subject, or did you wish to include the whole deliberations of the House?

HENRY COOK, M.D. (Genesee): No, just this one.

R. L. NOVY, M.D. (Wayne): There is a motion before the House to recess, and the Chair has decided against a point of order. I appeal the decision of the Chair, because it is in the Robert's Rules of Order.

W. B. HARM, M.D. (Wayne): Page sixty-five of Robert's Rules of Order: "RECESS: This motion is a combination of two proceedings, which take precedence over all other motions. If made when other business is before the assembly, it is a privileged motion, and is undebatable. You can have no subsidiary motion to apply to it except to amend."

(The question was called for.)

THE SPEAKER: Just a minute, boys. (*Laughter*)

The Chairman will still stick to his decision, although he can't find it in the book at this minute, that the terms to recess and to adjourn, are synonymous in Robert's Rules of Order, and when we move to adjourn to a definite time, which would be thirty minutes from now, I think that motion would not have precedence.

DAVID I. SUGAR, M.D. (Wayne): Mr. Speaker, we have met here to discuss an important situation. It seems to me that Dr. Ledwidge set the tone of the whole meeting when he said that he would not stick to parliamentary fine points of legality in order to railroad or stampede something through.

Now, there has been so much evasion, and so much subterfuge, and so much disclaim around this on the part of Michigan Medical Service, that if we are going to recess and meet for forty-five minutes, what assurance, or what guarantee do we have that the tail that is wagging the dog, namely, the Michigan Medical Service Corporation, will wait for us to meet with them?

R. L. NOVY, M.D. (Wayne): My assurance.

DAVID I. SUGAR, M.D. (Wayne): Your assurance. Well, that is not sufficient to guarantee that this Board will wait until we meet with them.

THE SPEAKER: Dr. Walker has the floor first.

ROGER V. WALKER, M.D. (Wayne): Mr. Speaker, I am just as anxious that a full discussion of this Michigan Medical Service Plan be had before the corporation meeting be held as anybody in this room, and I know the suspicions that some might have as to the possibility of that Michigan Medical Service going ahead with their meeting before this discussion takes place, but we have had the word of the President. I think we can all believe what Dr. Novy says, that he will not have the meeting. And, in the second place, you can't have a meeting unless a quorum is there, and you constitute the quorum. If you don't want the meeting, stay away. He himself said he wouldn't have the meeting. (*Applause*)

THE SPEAKER: Dr. Novy.

R. L. NOVY, M.D. (Wayne): Mr. Speaker, may I have the floor for just a moment?

We want a full discussion. When this motion comes up, or when this problem comes up, there is another amendment that has been proposed, not to this House, but to the corporation. It will be necessary, in order to have a fair discussion, to probably bring that up at this time, which is out of order as far as regulations go. In order to have a complete and fair discussion, both of them should be considered. A lot of information that is due to be given at the corporation meeting should also be considered. I am willing to give that

information, and talk about that information, in so far as I can. But it is obviously out of order, if you are going to stick to order on the thing. If you go into the corporation setup, you would have the whole information in order. I wish that would be borne in mind when you consider the resolutions that are forthcoming, and that action be taken with that in view, that the whole story can't be given, and the place to give the whole story is there.

I will stick here as a Michigan Medical delegate until you are through. After that, then the corporation meeting will convene. (*Applause*)

O. D. Stryker, M.D. (Newaygo): I move the question.

The Speaker: There is a question before the House, a motion before the House, and the motion is to recess for thirty minutes, to reconvene and consider this topic until we have finished it—this topic of Michigan Medical Service. Are you ready for the question? All in favor of that motion say "aye"; opposed. We will reconvene in thirty minutes.

(The meeting recessed at twelve fifty-five o'clock.)

*RECESS*

The second meeting reconvened at two o'clock, P. L. Ledwidge, M.D., presiding.

The Speaker: The House will please come to order.

We will proceed with the report of the Reference Committee on Resolutions.

## XI-6(e). RE: MICHIGAN MEDICAL SERVICE —CHRISTIAN RESOLUTION (VIII-3d)

A. E. Catherwood, M.D. (Wayne): In regard to the resolution presented by Dr. Christian, the committee was unanimous in recommending that we adopt this resolution with the deletion of the word "adopt."

Let me read that paragraph again, so you will understand it:

"Therefore Be It Resolved, That the House of Delegates of Michigan State Medical Society approve . . . and adopt"—we approve the principle and rule the above resolution . . ."

Now, there was considerable discussion on the ten commandments as written by the AMA, and the whole thing simmered down as to what was the unit referred to by the American Medical Association, and the interpretation of that—I think it was the eighth of the ten commandments. I will read that eighth rule—or shall I read them all?

Members: Read them all.

(Doctor Catherwood read the ten commandments laid down by the AMA.)

A. E. Catherwood, M.D. (Wayne): Then, to repeat the committee's recommendation, the committee was unanimous in recommending that we adopt this resolution with the deletion of the word "adopt." I so move.

L. G. Christian, M.D. (Ingham): I support that motion.

The Speaker: You have heard the motion to accept the committee's report with the deletion of the word "adopt." Is there discussion? If not, all in favor say "aye"; opposed. The motion is carried.

## XI-6(f). VARDON RESOLUTION NO. 1 (VIII-3a)

A. E. Catherwood, M.D. (Wayne): Now the first of the resolutions presented by Dr. Vardon, which has to do with Article II of the Articles of Incorporation of Michigan Medical Service. Your committee recommends against the adoption of Article II. There was one dissenting vote on the first paragraph, that is, the one limiting income to $1200 and $1500. On the last two paragraphs which I read, dealing with the sale, or offer of sale, or renewal of any plan, contract, or policy, where it has been disapproved by two-thirds of the members in good standing of the local County Medical Society, and provided further, no alternate plan can be substituted without a sixty-day notice, and submission for approval—on that part of it there were three dissenting votes, so I think probably we have a minority report on those two parts of this Article II.

I move, then, the adoption of the first part of the committee's recommendation, that in which the committee recommends against adoption of the cutting down of the income groups froom $2500 and $2000 to $1500 and $1200.

G. L. McClellan, M.D. (Wayne): I second it.

The Speaker: Moved by Dr. Catherwood, and seconded by Dr. McClellan of Wayne.

L. G. Christian, M.D. (Ingham): I rise to a point of order, Mr. Speaker. How can the House of Delegates of the Michigan State Medical Society make changes in the Constitution and By-Laws of the Michigan Medical Service? I would like a ruling on that.

The Speaker: Dr. Christian, your point is well taken, and this matter should properly go before the meeting of the Michigan Medical Service. I think, if you wish, you may express an opinion as to your feeling about it, but you certainly cannot change it. If you wish to express the feeling, the sense of this group, on this article, by voting on Dr. Catherwood's motion, the Chair will accept the vote.

R. L. Novy, M.D. (Wayne): Mr. Chairman, that is technically correct. Of course, in changing the amendments, this body, as it sits now, cannot change those amendments, or those Articles.

The Speaker: Gentlemen, I believe we are proper in voting on that as stated.

Henry Cook, M.D. (Genesee): Mr. Speaker, the purpose of this resolution as presented to this House has probably been pretty well served, and that was to bring it before this group for discussion, consideration and thought. In view of the fact that this matter is now a question of whether it should be considered by this body, because of the matter of time, after consultation with a number of those interested in it, I would like to make a substitute motion, or an amendment, if it is in order. Is it in order, Mr. Chairman?

The Speaker: I think it is in order, Dr. Cook. If you will wait just a minute, I would like to settle this point first, as to whether the House is clear on this.

The most that we can do is to recommend to the members of Michigan Medical Service that they do not adopt this when it comes up before their body. That is the most we can do.

R. L. Novy, M.D. (Wayne): It gives the membership a chance to clarify this particular point of view now rather than later. This is the way in which it was brought up, and you are going to have to bring it up again. It is now in front of you. And you are now talking without laymen. Otherwise the whole purpose of this thing, and the committee's whole time spent this morning, and your staying over, has been time practically lost. There has been, so far, no discussion except in committee on this. It is right up to the point of discussion. Why not discuss it?

Henry Cook, M.D. (Genesee): I agree with Dr. Novy. He is perfectly fair in his attitude. I don't question his sincerity whatsoever. I never have. However, the discussion which I believe will be necessary would so long prolong it, and delay the meeting of the corporation, and there is no reason why our arguments, if we have any, could not just as well be presented before the laymen, and it might be helpful.

Because of the fact that there are two points of change in that first section, the last of which is extremely important, and has been given very little con-

sideration, and, I am afraid, at least is entitled to dual consideration, that which has to do with hospitals, I would like to make a substitute motion, that without discussion this matter be referred to the corporation, at which time the resolutions will be introduced.

THE SPEAKER: Dr. Cook, one point for clarification. Are you referring now to this one item?

HENRY COOK, M.D. (Genesee): To them all.

THE SPEAKER: To all of this that has been included to date?

HENRY COOK, M.D. (Genesee): To all of the three resolutions.

A. E. CATHERWOOD, M.D. (Wayne): There is one Article we reported on. The first paragraph was all I moved for adoption.

THE SPEAKER: You mean to include, Dr. Cook, not only the resolution that has been read, but the other two that will follow?

HENRY COOK, M.D. (Genesee): All three.

STANLEY W. INSLEY, M.D. (Wayne): Mr. Speaker, may I ask for a clarification, a point of order, here? Granting that the first motion may not have been altogether in order, the only way it can be made in order is to recommend these things to the Michigan Medical Service. Granting that the first motion might be out of order, would then Dr. Cook's motion also be out of order? I think we could clarify the whole situation, and make a yes or no vote in about two minutes, as to whether or not we can consider here actions or thoughts, and then send them over to the Michigan Medical Service for their action later.

THE SPEAKER: I don't quite get the point. I think you can do this: As I said in the beginning, without technicalities, I think we may properly discuss this here, but that we cannot make any changes. We can recommend that such is the sense of this group to the members, and then the members must take action.

Now I think we have to vote on this, and I will tell you why I think so. This was referred to the Committee on Resolutions, which is one of our official committees. They have reported back, and I think we have to take some action on it.

ROGER V. WALKER, M.D. (Wayne): Mr. Speaker, this very question you are talking about now came up in the committee this morning, and, just as Dr. Novy said, and I think the committee unanimously agreed, there would be an opportunity to have a more frank, open discussion from all angles, all points, where you are sitting as the House of Delegates, than where you will be sitting as members of the corporation, for the very reason that there may be some lay people who have perhaps an interest, and yet not the same viewpoint as we do, in the corporation meeting, that you men have here in this meeting. I think all the men brought that up, and made it with a definite purpose. All the discussion could very well be had here, with the recommendations, and the membership take action in the corporation meeting. Isn't that right? I think everybody in the committee agreed with that.

J. T. CONNELL, M.D. (Genesee): Mr. Speaker, I can see no reason whatever why we should take up our time discussing this thing here. We are going to go over the same thing again. Why should we be afraid to discuss this before the lay people? Some of this was put in this morning. We have no reason to be afraid of discussing anything that we believe in. We are not a bit ashamed of our standing in the state. We are willing to have laymen, the press, and everybody else know exactly what we stand for, and why we stand for it. We have nothing to conceal. And, as I see the thing, I see no reason why we should work way into the night on something that we can get over much sooner. Let's get where we can get down to business.

ROGER V. WALKER, M.D. (Wayne): It isn't with any idea of concealment of facts, or statements, or anything else, but it is very curious. from other years, that when some of the men get into the corporation meeting, they get tongue-tied, if you know what I mean. You can speak out here, but you don't talk up in the corporation meeting. They haven't done so in other years.

THE SPEAKER: May the Chairman say a word? When this was accepted last night, and referred to the Reference Committee on Resolutions, it was perfectly clear that there was a question of whether or not it should be accepted. That was perfectly clear. On the other hand, we wanted the delegates to have the right to present this question here in any form they wished, and to thresh it out without restrictions. That is why it was accepted. Now our committee has brought back a report, and we have only two alternatives, and I wish you would decide which you want. No. 1 is to go on and discuss this thing, if you wish, and vote on it. No. 2 is to vote on the recommendation now. This motion has to be voted on, and you may vote on it now or after discussion, whichever you wish.

R. S. BREAKEY, M.D., (Ingham): Mr. Chairman, since Dr. Catherwood suggested there may now be a minority report, before any vote is taken on any report of this committee, if there is a minority report it would seem that could well be presented.

THE SPEAKER: If there is a minority report, the speaker will now receive it, if there is no objection.

L. G. CHRISTIAN, M.D. (Ingham): What are you going to do with Cook's motion?

THE SPEAKER: We will vote on it in due time.

STANLEY W. INSLEY, M.D. (Wayne): Last year there was discussion on the floor, and at that time I held that the men had no right to talk on the floor in the meeting of the Michigan Medical Service. Some of them tried to object to it, and they were the ones who tried to object to it last year. I have nothing to conceal. Nobody else has, I think. I think we have the right, as doctors, to talk our problems over. That is my standpoint.

THE SPEAKER: In other words, Dr. Insley, you would like to discuss it now. Is that correct?

STANLEY W. INSLEY, M.D. (Wayne): Yes.

D. R. BRASIE, M.D. (Genesee): This is a minority report of the Reference Commitee on Resolutions. I may preface my remarks with the reason why our Chairman brought this up in sections. It was because there were two important things involved here:

1. The income limit; and
2. The question of local county options, or whether or not the county society had the right to refuse to act under any given plan.

A majority of the committee, you have been told, with one dissenting vote, were opposed to reducing the income limit. It is not customary, nor is it very proper, for one member of a committee, to bring a minority report on that. Consequently, I am not submitting a minority report on that phase of the question. The phase of the question on which the minority disagreed was this other question which has not as yet been presented for discussion. It was only with the idea, I believe, that it might not be confused, that the Chairman presented one item at a time.

Now, if you wish, sir, I will continue with my minority report.

THE SPEAKER: I would prefer that you wait until after we have settled the other points. I think you have to settle whether or not we are going to discuss these things here. If we are, there is a motion before the House on one point. This minority report does not refer to that motion. Therefore, I think we should dispose of that first, and then dispose of the minority report, which covers the other part.

Is there discussion, then, on this first part of the report?

EDWARD M. VARDON, M.D. (Wayne): Mr. Speaker, in defense of the twelve to fifteen hundred dollar

income limit—isn't that what we are talking about now?

THE SPEAKER: That is right, Sir.

EDWARD M. VARDON, M.D. (Wayne): I don't know what a lot of men consider low income groups. I practice in an urban community. Maybe I am years behind my time, but I can't help but feel that $2500 is good income. I don't think it is low, or underprivileged income.

This thing was designed for the man just above welfare, who could not carry the load. I think perhaps eighty-five or ninety per cent of our patients fall in this $2500 group, and have always carried the load. There have been no complaints, and everybody has been satisfied.

Now, in this society there are a great number of men. It is not a small group of dissenters. There are a great number of men who, if forced to do it, will fight to abolish this thing entirely. I mean that. We will fight to abolish it entirely. Now, the only way that you will have those men come along with you is to return to the original principles that were first laid down by the original committees, and that was sold to the men in their respective counties, not what the House of Delegates did here at $2000 and $2500, but return to the $1200 and $1500 limit.

I would like to know how many men of you here in this room have relatives that make less than $2500, and you don't consider them underprivileged. Many of our parents didn't make that amount. There are many doctors who are members of the society who don't make $2500 when their expenses are cleared. I talked to one man from the state yesterday, and he said, "If the majority of my patients made $1000 a year, I would have no collection troubles, and I would collect ninety-nine per cent of my bills.

Is there further discussion on this point?

W. D. BARRETT, M.D. (Wayne): Mr. Speaker, may I ask a question? The $1200 and $1500 was in the Marshal report, was it not?

THE SPEAKER: I believe that is correct.

W. D. BARRETT, M.D. (Wayne): The House of delegates passed the $2000 and $2500 limits, isn't that correct?

THE SPEAKER: That is correct.

W. D. BARRETT, M.D. (Wayne): Every year when the House of Delegates meets, are we going to bring up this question, and settle the income group, or are we going to settle the issues for which we are fighting today, that up to the present have not been carried out? That is the only question I wish to ask.

Is there further discussion?

HENRY COOK, M.D. (Genesee): Mr. Speaker, I would like to call attention to the fact that my substitute motion has not been acted upon. Whether I was in order I have never yet an answer.

THE SPEAKER: Was there a second to it?

HENRY COOK, M.D. (Genesee): Yes, that we consider it in the corporation, but if it is going to be discussed here—

THE SPEAKER: Dr. Cook, I will answer that now. I thought my statement answered that. That was not entertained for this reason: Last night we entertained this for the reasons I stated. It has gone to our Committee on Resolutions, and it has come back for action. We have to act on it one way or the other. We have to vote on it without discussion, that our recommendations are so and so, or discuss it here, and then vote on it. That is why I didn't take up your motion.

HENRY COOK, M.D. (Genesee): I would like to take exception to your ruling on this ground; that this body has a perfect right to dispose of this matter as it may see fit. If it wishes to refer, and not consider it —refer it over to the body, I think it is within its power, regardless of any previous matters, but if it is going to be considered, there is one point I would like to discuss which has not been emphasized here, and which I think should be, if you are going to consider it separately from the first section of the amendments that were added.

The first section that was amended, or the first change, was that the limitation be established at $1500 and $1200. Now, I would hate to see the second section totally disregarded that was changed, and not given thought, and if it is to be acted upon, I would like to have it acted upon separately, because there are two points in it, although it is in the same resolution.

THE SPEAKER: Dr. Cook, may I interrupt you for a moment? That is exactly what we are doing.

HENRY COOK, M.D. (Genesee): You are voting on the hospital phase? I beg your pardon. I thought you were voting on the whole resolution, so I might be confused.

THE SPEAKER: That is right.

GLENN L. COAN, M.D. (Wayne): Mr. Speaker, I speak as a representative of a group of physicians in the smaller towns south of Detroit, in the south end of Wayne County, where we mostly participated in Michigan Medical Service until a few months ago, at which time there was a split in the medical profession brought about by an effort to weed out the nonparticipating physicians who had formed a large group, especially in the eastern and central counties of the state. They represent a large part of this society, and what I am speaking for is not so much to name a definite level at which a man can exist comfortably, or where he can exist barely, but rather to get unity in this soociety. If the present income level goes on the split is going to be widened and deepened, and whether we can ever get together on a medical service plan is doubtful. I won't be arbitrary about the $1500 and $1200 marks, but if that income level is not reduced from the $2500 and $2000 mark, there is going to be a wide, deep rift in this society, and I don't know how long it may take to heal it. So I should like to make a plea for unity by voting down the motion of the Reference Committee, and adopting as a recommendation to the delegates in going into the stockholders' meeting, that that level be set at $1500 and $1200. That action is not final as far as the actual incorporation of it into the Constitution of the Michigan Medical Service is concerned, but it should express our opinion, and that is, that we have got to get together on the thing, and the $1500 level, or something very slightly above that, is the only level at which the Medical Profession can get together.

L. J. HIRSCHMAN, M.D. (Wayne): Mr. Speaker, I just want to get one thing clear, and that is, when we speak of $2000 and $2500 levels, we are not speaking of levels, we are speaking of roofs. That is the speed limit, the outside limit in these two groups. Now, many, many patients that we take care of get far less than the maximum. They get many of them, down in between the two groups, and a man, for instance, who is making $2000, or $2200, or even $1800 a year, with a family, has a different income than the man who is getting $2500. And another thing, we must all remember this, and you all know this; that $2500 as a roof may have been a nice income two or three years ago, but the cost of living going up the way it is now, and with a man who has a family of two or three children, who is trying to keep them decently, hasn't very much margin between the roof and the present cost of living. Don't forget that in your discussion, and don't forget that goes for the $1200 and the $1500 roofs, too.

D. R. BRASIE, M.D. (Genesee): Mr. Speaker, I speak now as a committee member, so we won't be confused.

This is one example of why the income limit is set in one way in one county, and in another way in another county. In our county of Genesee, at least, a single man earning $2000 does not come within our defi-

nition of the ten principles laid down by the AMA, namely, that they must be below the comfort level. We have felt that to grant the principle of a fixed fee to this income group, a rigid fee, fixed by the corporation, in this income group, we were in fact subsidizing that group at the expense of the medical profession. We did not feel that any group should subsidize, or be asked to subsidize any other economic group within our structure of the United States.

We are willing to go even further than this plan does in aiding those individuals who are below the comfort level, or close to the comfort level, or even slightly above the comfort level. But to give unto any corporation even supposedly a benevolent one, the right to state that you cannot and must not charge, under any circumstances, any more than the amount they have laid down, to a single man earning $2000, or to a married man without children in the $2500 level, seems to us to be sacrificing a very definite right. There are very few exceptions in every county, of course, but on the whole our men have been very courteous about those things.

But bear in mind that the agreement that you sign as a participating doctor involves your word of honor, when you sign it, that you will not charge anybody above what the fee the corporation is able to pay you who is in that income group.

Now, if the corporation is always financially able to pay the maximum fee that they have set up in their fee schedule, perhaps that is satisfactory to you. However, should that fee schedule be changed, or should they be unable to pay that fee schedule, you are still going to do work for an individual earning $2000, certainly not in the comfort level, for a reduced price that you have agreed to when you signed and became a participating member.

We are not so concerned with the amount of the fee that we receive. The fee schedule in the under-comfort level is very adequate, in the borderline cases it is adequate, in the above-comfort level it is often inequitable, and constitutes a frank donation, a frank piece of charity on the part of the physician. The principle involved in this is the important thing, the principle of establishing a large group—namely, in our county, eighty per cent of our inhabitants who come within this group classification—and of saying to them, "This is the fee. We will not charge you any more." In other words, it is an absolutely rigid, fixed fee in a specific classification for which it is paid. Therefore, we have been opposed to the fixed fee principle in this particular income group.

The Marshall Report, I understand, after a very comprehensive survey, was made on income limits of 1928, 1929 and 1930, a three-year average, which certainly could not be considered that of the depths of the depression, and yet, this was their advice and recommendation after many years of study.

I might state that there has been a lot of misconception as to how the original schedule of fees based on $2000 and $2500 were arrived at. It just happened that also on that occasion I sat in on the committee, the Reference Committee on Resolutions, when this question came before the committee. Somewhere in the rules and regulations, and somewhere in that pile of stuff I have, and haven't been able to sort out, you will find in the minutes of the meeting of the State Society, if I am not mistaken, the following statement, from the Reference Committee of that date: "Although the Reference Committee felt that the income limit of $2000 and $2500 was too high, there didn't seem to be anything they could do about it, inasmuch as that was the demand of the Insurance Commissioner of the State of Michigan." That statement by Mr. Laux was given to the Reference Committee at the time it met.

Therefore, when we discuss the fee limit, let's not go back to that sacred level as if it were our own creation. Even at that early date, before the corporation was even in active existence, other people were dictating the income level.

I think we should consider very carefully the principles involved in this proposition.

W. B. Harm, M.D. (Wayne): Mr. Speaker, before I start I want to congratulate Dr. Brasie. He is one of the original men who worked on this thing, and he voted against it all the way through. He hasn't changed his mind any of the way. He started voting "no," and he is still voting "no." Congratulations to one man who stuck to it.

To start with, I am a participating doctor, I always have been, and I still am, and I don't believe that doctors should be in the insurance business. We are saying a lot of things about income limits. That is just a lot of camouflage. There is a bigger principle back of it. The biggest thing is, do the doctors want to stay in the insurance business, or do they want to get out?

This thing started some years ago when the House of Delegates voted for Michigan Medical Service. Most of the men in the Medical Society woke up the next morning and read it in their newspapers. They knew nothing of it beforehand. They knew that the proposition had been made, they knew it was being offered, there was something being done about it, but the plan was never submitted to them, there was no referendum of the society as a whole. They accepted it.

In the plan was the provisions for participating and nonparticipating members. There was a question of fees. There has never been any set fee. The fee has been set entirely at the privilege of Michigan Medical Service's Board of Directors. They can pay you what they wish for an operation. They can pay you what they wish for your services. The fee is set in accordance with what their income is for the month, compared to what their outgo is. As I understand it, this organization can't go broke. The only way they can go broke is by not paying us. The patient gets his services for nothing if they don't take anything in. So your fees are indefinite, and always will be indefinite.

We had participating and nonparticipating members. This was voted as a democratic thing in your House of Delegates. But a large group of our members never wished to work with the society, never became participating, and, as a result, those men in their selfishness—and this is not something I am just saying for the first time—took advantage of the other men who participated. In other words, those men accepted a fee as given by Michigan Medical Service, and then were able to collect an additional fee, and that caused dissension throughout the medical circles, and split your medical society, the nonparticipating men, of course, benefiting to their own advantage.

You have had a statement here by Dr. Vardon, which shows you the principles behind it. He says, "You will either accept these limits, or else." I almost thought Mr. McNutt was here. That "or else" is getting to be popular these days.

You talk about limits. Regardless of what you do here, you can't set limits from year to year. Economic conditions are going to change. You are going to have limits today that are not going to be available next year, or five years from now, and if this is going to be a question of income limits, you are going to have this argument every year when you come down to this meeting.

So it is my belief this whole thing is just a camouflage as to whether you want insurance, or whether you don't want insurance. Why not look the thing squarely in the face and make up your minds? If you don't want it, come out and say so. If you do want it, let's all play ball, let's all be participating, and let's get behind the ball and keep it rolling, if it is possible.

If you don't want it, now is the time to shut it off and get it over with.

D. R. Brasie, M.D. (Genesee): Gentlemen, just to take exception to that remark, he stated it was a camouflage. He also stated I had been consistent in my position.

Sir, it wasn't camouflage three years ago, and it is not now.

Robert H. Baker, M.D. (Oakland): May I speak for a moment? I want to say one thing in answer to Dr. Hirschman's remarks about this, and I have heard it all over the meeting this morning, and last night, about the income level having been raised among the working men from the time when they were making $1900 or $1800, and now when they are making $2500 to $2800. That is very true. I haven't the facts with me, but they are very readily obtainable from government reports within the last ten days showing that the raise in wage of the average American worker is for in excess of the raise in cost of living. Now, that does not affect the doctor. Our raise in income has not been going up according to the cost of living.

I would like to go back briefly to what happened in Oakland County. Oakland County has never taken a poositive vote supporting the income levels, or the action of the House of Delegates at the time they adopted the $2000 and $2500 limits. We were like the rest of the fellows who read it in the papers. It was weeks after, before our delegates got this. Finally Dr. Henry Carstens and Mr. Laux came to Pontiac on three occasions and tried to sell us on Michigan Medical Service.

Years ago, during the Marshall Committee, we were pretty well acquainted with us. Some of us were delegates at that time. And the principles behind that, the service that it was intended to render, and the income levels it was intended to serve, were acceptable. But never has Oakland County taken a positive vote to support this. Oakland County has taken several votes, three in fact, not to support it as participating men.

Now, something has been said here continually about how much you make out of this income level, and I know perfectly well from experience in my own country how little the reports of the State Association Journal are read. I would like to quote for you two things to show you what you are doing. If you are willing to accept from this $2000-$2500 level the fees which you would normally charge the $1500 man, all right, that is your business.

From the July issue, 1941 of the Michigan State Medical Society Journal, on the page headed, "Michigan Medical Service," well down on the page is a heading under the caption of "Doctors":

> "During the first thirteen months of operation, the funds received from subscribers were sufficient to pay benefits to doctors for services rendered in the amounts equivalent to prevailing charges to persons with moderate incomes of approximately $1,500 to $1,700 annually."

They admitted right there they weren't paying you the income you were entitled to for the $2000-$2500 class. They were paying you an income which you were normally, on the average, charging your $1500 to $1700 group.

In September, of the State Journal, of the same year, 1941 under the heading of "Michigan Medical Service," is another paragraph:

> "A schedule of benefits in keeping with this general level of payments, which is equivalent to prevailing charges by doctors in Michigan for persons whose incomes range from $1,500 to $1,700 annually was carefully set up through the coöperation of the numerous committees in the various fields."

Now, if you fellows think you are accepting, on this $2000-$2500 level, a fee which is a normal charge in this state, I am very much surprised. It certainly is not the experience in our county, and we know it is not the experience in Ingham, and Genesee, and I doubt very much that it is the experience in Wayne. It may be the experience in some of the state's counties, where overhead of the doctors is not so high, and where the fees we know have not been as high.

We feel we should not be dictated to as to the fees we charge our patients by a House of Delegates, either acting here or in session as Michigan Medical Service, representing medical men, X-ray men, hospital physicians, and so forth, who are not doing much of any, if any, surgery. We feel they should not try to decide for us, in these large industrial counties where eighty per cent or more of our patients are in this insured group, what we have to accept. We don't consider that as fair.

The Speaker: Is there further discussion on this motion?

L. J. Morand, M.D. (Wayne): Mr. Speaker, and Gentlemen: I wish to agree with everybody, and I can almost do so without qualification on everything that has been said. So far we have done nothing to straighten out our difficulties.

The early, original concept of Michigan Medical Service was to take care of the low income group. I feel that $2000 and $2500 is comfortable income, and not low income. I feel it is unfair because about 80 per cent of our patients are in that group, and it does not affect only the policyholder. I mean by that that this influences the holders of insurance policies from commercial insurance companies. They expect the same treatment. The man across the street from the policyholders, his brother-in-law, his cousin, everybody that he knows, expects that you are going to charge them the same that you accepted from Michigan Medical Service, and that fixes the fees on about 80 per cent of your practice. That is why it is unfair. The $2000 and $2500 group have available commercial insurance, which is satisfactory to them, and satisfactory to the doctor.

I agree with one of the speakers, that we are in the insurance business. We are competing with commercial companies.

Now, this is not an effort, as we have been accused of trying to kill or get rid of Michigan Medical Service. We are merely trying to get back to the basic principles. If there is a definite demand for it, it will go on and exist, or it will fail if there is no demand for it.

You don't know, and I don't know, whether it is possible to carry on Michigan Medical Service on a $1500 and $1200 income group, because it has never been tried. I will grant you that the $2000 and $2500 limit was established by the House of Delegates. It is our mistake. Let's rectify it.

The Speaker: Is there further discussion on this point?

Edward M. Vardon, M.D. (Wayne): Mr. Speaker, if I gave the impression that I was dictating, I am sorry. I was pleading for unity. I had no intention of dictating to this group of men what they should do. I was trying to prevent a rift in this organization. A lot of the boys back home want to know what we are going to do here today, and just how we do it. When the vote comes, I call for a vote of record.

The Speaker: Is there further discussion?

G. L. McClellan, M.D. (Wayne): Mr. Speaker, I have only a few words to say. I wondered why we, just before the recess, were opposed to going into a session with the Michigan Medical Service without a prolonged discussion in the House of Delegates, but then immediately after recess we should have no discussion on this point.

I did not get to the meeting last year because of illness, so I don't know exactly what happened. But I do know that I have heard woeful sobs in my own county based on the fact that this matter was not

sufficiently discussed before the House of Delegates, so I again wonder, why shun discussion before the House of Delegates. After all, various gentlemen are coming here, presumably as representatives of their county societies, acting officially in that capacity, and as component societies of the Michigan State Society.

HENRY COOK, M.D. (Genesee): Mr. Speaker, point of order. I would like to have the speaker confine his remarks to the point of issue.

G. L. MCCLELLAN, M.D. (Wayne): I will say the gentleman who rose to the point of order was one of those who raised the point that I am now discussing.

It seems to me that we should look into this matter very, very carefully. Unlike my friend, Dr. Harm, I am not a participating physician. I was a member of the House of Delegates that voted Michigan Medical Service in. I at that time was not satisfied with the $2500 limitation. I thought it should have been $2000, but I was willing to bow to the will of the majority and try this thing out. I refused to become a participating member because of various inequalities and injustices that I thought went into operation immediately with the plan. I cannot, therefore, I believe, be accused of being a participant in Michigan Medical Service.

THE SPEAKER: Dr. McClellan, the Speaker is sorry, but you really will have to stick to the subject.

G. L. MCCLELLAN, M.D. (Wayne): All right, Mr. Speaker.

There is one phase that has not been touched upon today regarding the income level, and that is this: Labor did not ask us for a $2500 limitation. We offered it. The disgruntlement that has arisen over this is not primarily one of the $2500 limitation, it is due to other causes. But there are other things that occur regularly in connection with this $2500 limitation, and that is the support of various men throughout the State of Michigan for measures which organized medicine must have.

To my personal knowledge, during the last three sessions of the legislature, there have been measures introduced emanating from Washington which were designed to set up a federalized medical bureau within the State of Michigan. So far we have been able to successfully beat these. We have beaten them primarily with the rural legislators, but always with the help of the men from the urban communities. If we are going to snatch away from labor the bag of candy (and that is not my original phrase) which we presented to them, namely, the $2500 limitation, we are going to arouse in them a feeling of resentment. When various other measures come in here to the State of Michigan, into the legislature, which are designed to hurt Michigan State Medical Society, we will not then have the support of legislators from urban districts who are under the control of organized labor, and there are many things that can happen to us through other methods of legislation which are just as bad, and probably worse than going on with the $2500.

Furthermore, I don't know why we should particularly carry the burden of taxation for all the lower income group, but the fact remains that the $2500 which we voted for, and which we thought might have been a little too high, is today certainly not too high with the various deductions taken out of labor's pay roll. I think if you count up all the various percentages that are being taken out, the enforced savings, the increased taxation which labor has never had to carry before on its income tax, your $2500, gentlemen, dwindles down to something like about $1550 or $1560, and if you were willing to subsidize them at $1500 two years ago, you should be willing to subsidize them today for $2500.

THE SPEAKER: Is there further discussion?

J. T. CONNELL, M.D. (Genesee): Mr. Speaker, after all, isn't this issue that has come up before us the one thing that is disunited? I think Dr. McClellan's attack on Dr. Cook—well, he didn't really mean it. But this is like religion, we don't reason. We get emotional with the thing, and that is the one thing I want to say to you. Think of what this is doing to the State Medical Society. In the last few years nearly all of the effort has been put into trying to make this work. Now, it may be somebody's fault, maybe it is more my fault than anybody else's, but I am afraid, like with religion, I am going to stick to it. I think we ought to take that into consideration. Can't we get back to running the State Medical Society and get out of the insurance business?

THE SPEAKER: Is there further discussion on this point, as to income limits?

R. L. NOVY, M.D. (Wayne): Mr. Chairman, I would like to make just a few remarks, not in the way of driving for one thing or another, but pertinent remarks.

If you had set in 1939 the limit of $2000, the cost of living has gone up 20 per cent since then, and if you were to reset today those same limits, based upon the cost of living, you would reset them at $2400, practically what you have now. That is one phase.

The next phase is on your limit of $1500. In the city of Detroit any individual can go to a free clinic whose family income is $1590, and he can get free at a clinic this medical attention, such as it is, and will be, with precision.

Third, if you think that it is possible to run an organization from fees collected from individuals who are in that free clinic level, I don't see how it is possible under any conditions to run that. A limit set with this arrangement is tantamount to destruction.

THE SPEAKER: Is there further discussion on this point?

VICTOR E. NELSON, M.D. (Wayne): Mr. Chairman, as an echo of Dr. Novy's remarks, I might bring out, too, that if the income limitation had been set at $1500 two years ago, that would correspond at present to $1800. Likewise, if free clinic care is available to an individual who earns $1590, then for the individual who earns $1620, Michigan Medical Service could be required and given.

THE SPEAKER: Is there further discussion? If not, are you ready for the question? Will you read that Article, Dr. Catherwood, to be perfectly clear on it?

A. E. CATHERWOOD, M.D. (Wayne): The first paragraph:

"The purpose or purposes of this corporation are as follows:
"To establish, maintain and operate a voluntary non-profit plan whereby complete medical and surgical care is provided at the expense of this corporation to such persons or groups of persons as shall become subscribers to such plan and whose total family income annually is not more than $1,500.00 from all sources, or to single persons without dependents having an income of not more than $1,200.00 annually from all sources, such care to be furnished under written contracts, providing complete definite medical and surgical care, appliances and supplies by licensed and registered doctors of medicine in the offices of such doctors, or in hospitals, or in the homes of such subscribers."

THE SPEAKER: If the Speaker understands this correctly, then, it means we do not approve reducing the so-called income limits to $1200 and $1500.

A. E. CATHERWOOD, M.D. (Wayne): That is right.

VICTOR E. NELSON, M.D. (Wayne): I do not wish to vote on the last half of that motion.

THE SPEAKER: This is only one motion.

VICTOR E. NELSON, M.D. (Wayne): The last half of that motion is a separate motion.

THE SPEAKER: It is all one paragraph, and has to do with reduction of income limits.

HENRY COOK, M.D (Genesee): May I give Dr. Nelson an explanation? The last part is exactly as it is in the present Act. There is no change made in that regard. The section on $1200 and $1500 was simply woven into that which is a part of the By-Laws now.

THE SPEAKER: Further discussion is now out of order. The question was asked for, and we were simply repeating the motion.

HENRY A. LUCE, M.D. (Wayne): Mr. Speaker, am I to understand if I vote "yes," I do not favor an establish fee of $1500 and $1200?

THE SPEAKER: Correct.

HENRY A. LUCE, M. D. (Wayne): "Yes" votes are opposed to fixing the fees at incomes of $1200 and $1500.

THE SPEAKER: That is correct. If you vote "yes" on the motion, you vote against reducing income limits to $1200 and $1500.

R. A. C. WOLLENBERG, M.D. (Wayne): Mr. Speaker, may I say, we are not establishing that particular figure, we are recommending it.

THE SPPEAKER: That is clear, Dr. Wollenberg. Thank you very much.

All in favor of adopting the committee's recommendation vote "aye"; all opposed "no."

Let's ask for a rising vote. All in favor please rise. All in favor of adopting the committee's report please stand. All right, those opposed. I believe the "ayes" have it, but are you satisfied to accept it without a roll call? If not, we will ask for the roll call.

EDWARD M. VARDON, M.D. (Wayne): Mr. Speaker, I asked for a matter of record to have a vote of record.

THE SPEAKER: Dr. Vardon, if you don't mind, I will ask you this question, and then we will act on your suggestion. Taking a roll call takes quite some time. Now, everybody knows how you are going to vote. That is what you want to know, isn't it? If you still insist that we have a roll call, we will have it, but it takes about fifteen or twenty minutes.

EDWARD M. VARDON, M.D. (Wayne): Our constituents want to know how their representatives are voting on this matter.

THE SPEAKER: We have a right to count them first, and we have a right to do it that way. However, I will submit it to the House.

MEMBERS: Count it.

ALFRED LABINE, M.D. (Houghton): Mr. Speaker, I move that the Secretary count the "ayes" first, and then the "no's."

(The motion was regularly seconded.)

THE SPEAKER: There is a motion that we first count the votes. All in favor say "aye"; opposed. It is carried. We will count them first. The Speaker has a right to do that first, but we don't want to do it unless it is necessary.

Will those in favor please rise?

THE SECRETARY: Sixty-five.

THE SPEAKER: Will those opposed please rise?

THE SECRETARY: Twenty-eight.

THE SPEAKER: Dr. Vardon, are you satisfied with that, or do you still want it?

EDWARD M. VARDON, M.D. (Wayne): I don't want to be mean about it, I am sorry, but I asked for a vote of record for the fellows back home. They want to know.

W. D. BARRETT, M.D. (Wayne): Mr. Chairman, I support Dr. Vardon's motion.

(A roll call vote was taken.)

THE SPEAKER: Have all Delegates voted? Mr. Secretary, will you announce the results of the vote?

THE SECRETARY: There are twenty-eight "nayes", and that is what we got by the count. There are sixty-eight "yes" votes. That is three more than I got on the standing vote. And there are seven that didn't vote.

I. W. GREENE, M.D. (Shiawassee): When we were discussing this vote, this was pushed over on the districts by the upstate counties—

THE SPEAKER: Dr. Greene, if you don't mind, I would like to announce the vote passed, for the record. The motion has passed both by rising vote and roll call.

## VOTE ON INCOME LIMITS OF MICHIGAN MEDICAL SERVICE

*Ayes* (68)

E. L. Foley, M.D., Alpena-Alcona-Presque Isle
Gordon F. Fisher, M.D., Barry
C. L. Hess, M.D., Bay-Arenac-Iosco-Gladwin
Fred Drummond, M.D., Bay-Arenac-Iosco-Gladwin
Donald Thorup, M.D., Berrien
R. L. Wade, M.D., Branch
A. T. Hafford, M.D., Calhoun
C. S. Gorsline, M.D., Calhoun
S. L. Loupee, M.D., Cass
J. J. Walch, M.D., Delta-Schoolcraft
W. H. Alexander, M.D., Dickinson-Iron
M. G. Becker, M.D., Gratiot-Isabella-Clare
L. W. Day, M.D., Hillsdale
Alfred LaBine, M.D., Houghton-Keweenaw-Baraga
C. W. Oakes, M.D., Huron
L. G. Christian, M.D., Ingham
R. S. Breakey, M.D., Ingham
Wm. L. Bird, M.D., Ionia-Montcalm
H. A. Brown, M.D., Jackson
J. J. O'Meara, M.D., Jackson
G. Howard Southwick, M.D.. Kent
A. B. Smith, M.D., Kent
A. V. Wenger, M.D., Kent
Carl F. Snapp, M.D., Kent
Daniel DeVries, M.D., Kent
D. J. O'Brien, M.D., Lapeer
D. C. Stephens, M.D., Livingston
Henry E. Perry, M.D., Luce
D. Bruce Wiley, M.D., Macomb
E. A. Oakes, M.D., Manistee
V. Vandeventer, M.D., Marquette-Alger
Gordon H. Yeo, M.D., Mecosta-Osceola-Lake
C. R. Keyport, M.D., Med. Soc. of No. Cent. Counties
H. T. Sethney, M.D., Menominee
H. H. Gay, M.D., Midland
D. C. Denman, M.D., Monroe
E. N. D'Alcorn, M.D., Muskegon
Leland E. Holly, M.D., Muskegon
O. D. Stryker, M.D., Newaygo
Fred Mayne, M.D., Northern Michigan
J. E. Church, M.D., Oakland
A. E. Stickley, M.D., Ottawa
C. E. Toshach, M.D., Saginaw
L. C. Harvie, M.D., Saginaw
R. K. Hart, M.D., Sanilac
I. W. Greene, M.D., Shiawassee
D. B. Ruskin, M.D., Tuscola
Wm. R. Young, M.D., Van Buren
W. D. Barrett, M.D., Wayne
G. L. McClellan, M.D., Wayne
S. W. Insley, M.D., Wayne
R. V. Walker, M.D., Wayne
H. W. Plaggemeyer, M.D., Wayne
Bruce C. Lockwood, M.D., Wayne
Edwin G. Bovill, M.D., Wayne
Wm. S. Gonne, M.D., Wayne
R. L. Novy, M.D., Wayne
Edward D. King, M.D., Wayne
Andrew H. Bracken, M.D., Wayne
A. E. Catherwood, M.D., Wayne
Henry A. Luce, M.D., Wayne
Harry F. Dibble, M.D., Wayne
A. H. Whittaker, M.D., Wayne
F. G. Buesser, M.D., Wayne
L. J. Hirschman, M.D., Wayne
Chas. E. Dutchess, M.D., Wayne
C. K. Hasley, M.D., Wayne
W. Joe Smith, M.D., Wexford-Missaukee-Lake

*Nays* (28)

D. R. Brasie, M.D., Genesee
R. D. Scott, M.D., Genesee
J. T. Connell, M.D., Genesee
C. F. DeVries, M.D., Ingham
L. W. Gerstner, M.D., Kalamazoo
V. C. Abbott, M.D., Oakland
R. H. Baker, M.D., Oakland
W. H. Boughner, M.D., St. Clair
L. J. Morand, M.D., Wayne
Wm. H. Honor, M.D., Wayne
Ira G. Downer, M.D., Wayne
Volney N. Butler, M.D., Wayne
Milton A. Darling, M.D., Wayne
R. A. C. Wollenberg, M.D., Wayne
T. G. Amos, M.D., Wayne
L. J. Gariepy, M.D., Wayne
W. B. Harm, M.D., Wayne
C. J. Jentgen, M.D., Wayne
R. H. Bookmyer, M.D., Wayne
Glenn L. Coan, M.D., Wayne
S. A. Flaherty, M.D., Wayne
Edw. M. Vardon, M.D., Wayne
A. V. Forrester, M.D., Wayne
James M. Kennary, M.D., Wayne
Hazen L. Miller, M.D., Wayne
David I. Sugar, M.D., Wayne
E. L. Chapman, M.D., Wayne
Victor E. Nelson, M.D., Wayne

*No Vote* (7)

R. J. Walker, M.D., Allegan
Dean W. Hart, M.D., Clinton
Don V. Hargrave, M.D., Eaton
Henry Cook, M.D., Genesee
R. A. Springer, M.D., St. Joseph
John A. Wessinger, M.D., Washtenaw
Dean W. Myers, M.D., Washtenaw.

I. W. Greene, M.D. (Shiawassee): If I may continue my remarks, I heard "yes" votes from Bay, Ingham, Saginaw, and Wayne. Those are not rural, small counties.

A. E. Catherwood, M.D. (Wayne): Now, on the second portion of this Article II, there are two paragraphs which can be considered as one, or separately. (*Reading.*) Your committee recommends against the adoption of this part of Article II. I so move.

The Speaker: Is there a second?

A. E. Stickley, M.D. (Ottawa): I second the motion.

The Speaker: We will now ask for the minority report from Dr. Brasie.

D. R. Brasie, M.D.( Genesee): With your permission, I will not reread the report. You have heard the paragraphs

The minority group of this committee signing this report are Dr. Walker of Wayne, Dr. DeVries of Ingham, and Dr. Brasie of Genesee.

This brings up once more the question of county rights. I was very sorry that it wasn't discussed under the motion that contained the same statement in a purer form in Dr. Christian's resolution. The minority of this committee feel that this portion of the report should be accepted. Mr. Speaker, I ask that you receive this minority report.

The Speaker: This report will be received as a minority report, unless there is objection. No motion is necessary unless there is objection. It doesn't have to be voted on.

Dr. Brasie raises a point as to whether this must be disposed of. In fairness to all, with a minority report it is only necessary to receive it, which does not require a motion, unless there is objection. We have done that. That part is completed. Now if Dr. Brasie wanted to offer this motion to replace the other one, he would have a right to do that, but we are a little bit late, because the other has already been accepted.

D. R. Brasie, M.D. (Genesee): Mr. Speaker, I move the acceptance of the minority report in place of the majority report.

The Speaker: Is there a second to that motion?

Victor E. Nelson, M.D. (Wayne): I second that.

The Speaker: We will now vote on Dr. Brasie's motion, which was seconded by Dr. Nelson, that motion being that we accept the minority report in place of the majority report on this last part that Dr. Catherwood has just read. Is there discussion on Dr. Brasie's motion that we accept the minority report in place of the other report? Are you ready for the question?

R. L. Novy, M.D. (Wayne): Mr. Speaker, the question of drawing county lines raises a very definite point of administrative difficulty in maintaining any kind of an organization. If you are going to make the statement that no contracts can be sold on the other side of the borderline, how are you going to make that determination? Perhaps a man lives on one side of the borderline, and works on the other. If one man has the contract, and has a friend living a block away, and the borderline is between him and his friend, one block away, one man can have it because he is on one side of the borderline, and the other man cannot have it because he is located across the line. If one man has the contract, and moves his home across that borderline, then what becomes of that contract? The administrative difficulties of that situation are obvious.

The Speaker: Is there further discussion? Inasmuch as it is now open, we will allow anybody to discuss it who wishes to.

Victor E. Nelson, M.D. (Wayne): Pertinent to this question, I think it should be called to your attention that we still live in a free country. I dislike regementation, and although it will make no difference at all in Wayne County where I am located, because I am outnumbered three or four to one, in my views, I don't think that something that is not wanted should be jammed down the throats of individuals who do not want it in their own localities.

Long ago this country of ours was founded on the principle that it was a joining together of separate states, each of which have sovereign rights. I think the same thing is true of this. The individual counties that make up the commonwealth of Michigan still have sovereign rights, and if the individual who lives next door to Genesee County, if it be Genesee County, moves into Genesee County and can't get service for his plan, let him drop it just the same as he would anything else that has county lines.

This question of borderlines comes up interminably. The question of limitation of income limits is a good example of that. It was sold to us in Pontiac some months ago—

The Speaker: Not income limits, doctor. We are through with that.

Victor E. Nelson, M.D. (Wayne): I am merely setting an example. If one individual who has protection, and is earning $2400, works next to an individual working on a similar machine, earning $2600, they should both be included in the plan. Consequently, the income limits, if they were upped to $2600 to include those, where would it stop?

Furthermore, you have already approved what may well be known as principle No. 11 of the ten principles, so-called, of the AMA, which states that plans should originate in county societies, and not the other way.

Roger V. Walker, M.D. (Wayne): Mr. Speaker, the reason I voted with the minority was much the same as what the doctor just expressed. For instance, you can't prevent the sale of this policy in one county as against another. Legally, you can go into any county and sell it. I don't deny that. But I do think the men in a given county should have the privilege of deciding for themselves whether or not they wish to coöperate in the working out of the plans, or contracts that may be sold. It is up to the corporation to work it out. If the county society as a group does not wish to service that plan, that is up to the corporation to provide that service in some other way. My idea was that if the contract is sold to a man working in a certain definite county, and he is getting service, or, in other words, medical care in that county, it doesn't make any difference where he lives, it is where he is getting his income from. He can live here in Michigan and get his income entirely from New York State, and not be taxed in Michigan on that income. Perhaps he may be taxed in New York, or vice versa. You don't pay double, but you pay it one place or the other.

Dr. Foster told me at the beginning of the meeting that so far as the State Society was concerned, the county was recognized as the smallest unit. I think that the men in each individual county should decide whether or not they wish to service the plans that may be sold. You can't stop the selling of it, but they should not be obliged to service them if they do not choose to.

Conditions, economic and otherwise, are entirely different in different parts of the state. In the upper part, the lower part, and in the urban communities conditions are entirely different. That is why I voted as I did.

The Speaker: Is there further discussion on this point?

Louis J. Gariepy, M.D. (Wayne): Mr. Speaker, and Gentlemen: This is a long way to come to ask one question. I wanted to ask Dr. Novy if these policies are now sold in every county in the State of Michigan. Are there policies in force in every county in the State of Michigan now?

R. L. Novy, M.D. (Wayne): I think there are. There may be some of the small counties upstate that do not have it. To the best of my knowledge, and to all intents and purposes, the answer would be, yes.

Louis J. Gariepy, M.D. (Wayne): Allowing that that is the case, you brought up the difficulty of selling one county a policy, and not another county. Of course, we all know these policies are sold through the corporations. I don't see where there would be any difficulty in saying that all corporations in Genesee County can't buy these. That is all right if those fellows don't want them in there. But if Mr. Jones works in the Flint plants, and lives in Detroit, he can't buy it. He is out of luck. If he wants to buy it in Detroit, he can be serviced in Detroit. But I see no reason why that can't be handled very expediently. It is sold through the corporations in Flint. It is handled so easily. There would be no difficulty about it.

Henry Cook, M.D. (Genesee): Mr. Speaker, may I be privileged to review somewhat the sale of the past twelve to fourteen months of contracts as they affected us in our county? I am very happy to know this afternoon that Genesee County is still in Michigan. This morning I couldn't help but notice that we were somewhat falling into disrepute. Other cities were mentioned, and I did feel like mentioning Flint. We happen to still have 156,000 people there.

When our delegates were at the meeting in this hotel one year ago, the question was asked, as you all know, if this contract of Michigan Medical Service had been sold to General Motors. It was impossible to get an answer that is was or was not. But there is a gentleman in this room who previously stated when he was at Mackinac Island he was told that the contract had been agreed upon. We had previously been told that the contracts would not be sold in Genesee County without the consent of our county. No such consent was ever requested or obtained. We were told in a conference with certain officers, which I personally did not attend but Dr. Brasie and others of our delegates were present, immediately thereafter that the contracts were agreed upon, and had been agreed upon. I would like to ask why the House of Delegates could not receive that information.

Now, gentlemen, I wish to state that I agree our county in no way questions the right of the Michigan State Medical Society in this constituted body to develop and sell a medical service plan within limits that the majority may decide upon. But I wish to state that in all fairness to us who have to practice where eighty per cent of our practice is in that level, that we ought not to be forced to accept such treatment. I am afraid, and I don't wish to make this a threat, that the breach which has occurred, and which is seriously now in existence, unless some of these things are done which we are asking are developed, will never be healed.

I have served willingly, and I do not wish to ask for any credit therefor, in the interests of the profession of Michigan. Grover Penberthy, Henry Perry, and others of us traveled from one end of the state to the other in 1934 and 1935 to redevelop the interest and confidence of the profession in the Michigan State Medical Society. Dr. Foster will bear me out when I state that the membership of the Michigan State Medical Society was 3200 then, and it is now 4600, and I am going to claim that the efforts of those men, with me, in becoming interested in their problems locally, helped to build up this healthy society.

Now, gentlemen, at that time I have a feeling that we found the state organization, through its organzation, had lost a little of its contact, I will not say interest, in these local communities. And I feel that the local communities shall have some right of veto upon the conditions of the practice of medicine in their communities. I feel, further, that it will be a more serious injury to this society if that principle is not upheld.

Gentlemen, I have practiced for thirty-three years in the State of Michigan, and I hope I will have a few more years. I don't have to, particularly. Maybe I am a little fortunate, but I like to; and so do you. If you didn't, you would do something like Dr. Hess. He goes up to his cottage in the summer, all except a couple of days in a week, and I wish I could do it. Congratulations, Dr. Hess.

Gentlemen, the medical profession of this United States, and Michigan, are facing a crisis, and that is, what is going to happen to the practice of medicine in the next ten years. To me it means little. But we as practitioners of medicine have been entrusted with a heritage as to what the practice of medicine shall be, and we have got to be fair to each other if we are to maintain, and are worthy of the heritage which we may pass on to those in the future.

I only wish to state that we must have a united program to face our enemies which we have, and those who are credits. And I don't care what you do to these resolutions, if you do nothing to heal the breach we will face the future in a much more weakened position. And, gentlemen, whatever comes out of this meeting today, or tomorrow, or tonight, or this afternoon, let us do something to bring together that society in that spirit of confidence and interest in each other to which our profession is entitled.

I hope, Dr. Novy, you will be able to lead us, and I wish to pledge to you our help to do the same, but if we are turned down in our rights by this, to have some determination of our own practice, we will not look with much reverence upon this organization. And when I say that, the men from Genesee will know and admit that I have preached this year that we must look forward to a constituted Michigan State Medical Society, and I shall so continue as long as I feel it is possible.

I thank you, gentlemen, but give serious consideration to this. Many of you who are my friends, and have been, have voted against me within the conventions on what was right, but do not do a thing which is wrong. And I bespeak for our local determination. It has been said that it cannot be so, that it is not practical. I wish to state that the State of Washington, that has been longest in medical service, I believe, at least as long as any, has a state and a council plan, and a county determines.

At the American Medical Association I think it was Dr. Fitzpatrick who thought it up, and upon that statement of his, the principles today approved here were adopted. So I bespeak fair consideration, and I thank yoou, gentlemen.

The Speaker: Is there further discussion on the motion? The motion is Dr. Brasie's, that we accept the minority report as a substitute for the majority report.

G. L. McClellan, M.D. (Wayne): Mr. Speaker, point of information. Has there been anything ascertained as to the legality of this organization attempting to stop the sale of insurance in any county in the state?

The Speaker: The Chairman is unable to answer that. He will allow anybody who can to answer it. If not, he will ask Dr. Catherwood what their feeling was about that.

A. E. Catherwood, M.D. (Wayne): It seems to me there was something brought up in the committee meeting this morning whereby the Insurance Commissioner was asked, and he would not commit himself. But the impression I got was that inasmuch as

there were no custom boarders within the state of Michigan, an act enabling us to form this organization in the State of Michigan implied that at least it would be a statewide proposition, and I don't think we can legally refuse to sell it in any county in the state. I am not sure of that.

L. J. MORAND, M.D. (Wayne): Mr. Speaker, does this question we are discussing now have to do with selling the service, or giving the service?

THE SPEAKER: Dr. Catherwood, will you answer that question for us?

A. E. CATHERWOOD, M.D. (Wayne): I don't know whether I can.

THE SPEAKER: If you can't, will you read that part of the report again so everybody can draw their own conclusions?

A. E. CATHERWOOD, M.D. (Wayne): I can read this part of the report, but I don't believe our Insurance Commissioner would allow us to sell insurance in a county and not service it. I don't think any Insurance Commissioner would stand for that. What is your impression?

(Doctor Catherwood reread the second part of Article II.)

THE SPEAKER: Is there further discussion? If not, the motion is that of Dr. Brasie, to substitute the minority report for the majority report. All in favor say "aye"; opposed.

Will the "ayes" please rise?

THE SECRETARY: Forty-four.

THE SPEAKER: There are forty-four voting yes on this motion.

Will the "no's" please rise?

THE SECRETARY: Forty-nine.

THE SPEAKER: Forty-nine. The motion is lost.

We will now vote on Dr. Catherwood's motion, which was to accept the report of the committee. Those in favor of the recommendation of the committee as read by Dr. Catherwood please rise. Will the "no's" please rise? I don't believe it is necessary to count. We will count them if anybody asks for it. The motion is carried.

Dr. Catherwood, will you proceed with your report?

## XI-6(g). VARDON RESOLUTION NO. 2 (VIII-3b)

A. E. CATHERWOOD, M.D. (Wayne): The next resolution offered by Dr. Vardon yesterday is Article IV. The main changes are in one paragraph. Your committee carefully considered this Article, and they advised rejection of part of Article IV as written, and in place of it recommend that the House of Delegates recommend to the Michigan Medical Service that their By-Laws be changed to provide that half of the Directors be elected each year, and that the terms of such Directors shall be two years, and staggered, so that the second paragraph reads:

At the annual meeting of the corporation in September of 1943, the members of the corporation shall elect one-half the directors of the corporation as herein provided for a term of two years and annually thereafter. In all elections of directors each member may vote for as many different candidates as there are directors to be elected. Those nominees receiving the highest number of votes cast for the number of directors to be chosen shall be deemed elected.

A. E. CATHERWOOD, M.D. (Wayne): Your committee discussed this from the standpoint that there would be too much loss in continuity if the whole Board of Directors was thrown out, and a new Board elected in one year, and I might say the proposers of this amendment agreed with us. This was unanimous in our committee.

I move the adoption of the Article as changed.

WM. H. HONOR, M.D. (Wayne): I second that motion.

THE SPEAKER: You have heard the motion. Is there discussion?

V. C. ABBOTT, M.D. (Oakland): Mr. Speaker, in view of the fact that there are two Council Districts in Wayne County, I would like to amend that motion to read that not more than one-third of the members of the Board of Directors shall be from any one county society. You see, Wayne is the only county that has two Councilor Districts. Therefore, it would be possible for Wayne County to have two-thirds of the number of the Board of Directors, and I don't believe that is fair.

VICTOR E. NELSON, M.D. (Wayne): I second that.

THE SPEAKER: Dr. Abbott's motion is this: that the recommendation as made by the committee be amended to read, instead of any councilor district, to any one county medical society.

THE SPEAKER: Is there discussion?

GLENN L. COAN, M.D. (Wayne): I rise to a point of information. Since Dr. Catherwood's motion has already deleted that paragraph, is it possible to entertain that amendment?

THE SPEAKER: Dr. Coan, you are very helpful to me, but still you show me an awfully good time. The question is, since Dr. Catherwood's report, or recommendation, has already eliminated that part of the report, or that part of the resolution, is it proper now to accept a motion to amend a part which has already been deleted? (*Laughter.*)

VICTOR E. NELSON, M.D. (Wayne): Can we have that motion read?

THE SPEAKER: Which motion?

VICTOR E. NELSON, M.D. (Wayne): What parts are deleted.

THE SPEAKER: Yes. Dr. Catherwood, will you read the parts that it would cover once more?

(Doctor Catherwood reread the paragraph which had been changed.)

THE SPEAKER: The Chair is ready to rule on this point. I believe that is an improper motion. I believe Dr. Coan's point is well taken. I believe, however, that if Dr. Abbott wishes to word his amendment in a different way, that we could take it.

V. C. ABBOTT, M.D. (Oakland): Show me.

THE SPEAKER: If you will say—I don't know as I can word it exactly—you move to amend, instead of deleting such section, to change the wording so and so, the way you want it, I believe you can do that, and offer that as an amendment.

VICTOR E. NELSON, M.D. (Wayne): I think all that is necessary is to substitute the wording.

THE SPEAKER: Dr. Nelson, I think you are out of order. I am sorry.

V. C. ABBOTT, M.D. (Oakland): Mr. Speaker, may I try to reword this now?

THE SPEAKER: Yes sir.

V. C. ABBOTT, M.D. (Oakland): If you have this resolution before you, I will start where it says, "Those nominees receiving the highest number of votes cast for the number of directors to be chosen shall be deemed elected, provided that should more than one-third of the directors be not thus included from one county medical society." Does that take care of it? That ends the condition. That is in the motion, I believe, as Dr. Catherwood stated it.

THE SPEAKER: Will you read that once more, doctor?

V. C. ABBOTT, M.D. (Oakland): I might as well start at the paragraph to make it clear.

"At the annual meeting of the corporation in September of 1943, the members of the corporation shall elect the directors of the corporation as herein provided for a term—shall elect one-half for a term of two years, and annually thereafter. In all elections of directors each member may vote for as many candidates as there are directors to be elected. Those nominees receiving the highest number of votes cast for the number of directors to be chosen shall be deemed elected provided that not more than one-third of the directors be elected from one county medical society."

VICTOR E. NELSON, M.D. (Wayne): I second it.

THE SPEAKER: You have heard the amendment as read. We will vote first on the amendment.

R. L. NOVY, M.D. (Wayne): May I say a word?

THE SPEAKER: On discussion, yes.

R. L. NOVY, M.D. (Wayne): It is a matter of amusement. I thought Dr. Brasie was going to say this. This amendment, as presented, had the endorsement of Dr. Brasie, and others with him, and I called their attention to the fact that if the motion passed as they wished it to pass, Detroit would have two-thirds of the membership, and that was the very purpose for which they were putting this in. It gave to Detroit two-thirds of the members as they had it worded. They had forgotten that Detroit has two councilor districts.

Now, just a word about that setup. Incidentally, I called your attention, also, to the wording of another portion of your report that needed rewriting, and that was done, and presented here in your rewritten form. It wasn't according to the way you had intended it to go.

One other point I wish to make is this: We have difficulties sometimes in getting good men. A good man is a good man no matter where he lives, and a poor man is still a poor man no matter what district he lives in.

THE SPEAKER: Is there further discussion on the amendment?

S. L. LOUPEE, M.D. (Cass): Mr. Speaker, I am not at all in favor of this proposed amendment, for the simple reason that it complicates the election, and it would be very difficult to determine practically who are elected as members of these districts; second, Wayne County has shown time and again, and the men of Wayne County have shown time and again, in this convention, they could be trusted just as well as the rest of us. So I am not in favor of it.

THE SPEAKER: Is there further discussion on the amendment? If not, are you ready for the question? The question is, shall we amend the recommendation as made by the committee by changing the wording as read by Dr. Abbott, meaning, if I understand it correctly, that no more than one-third of the directors could ever be from one county society.

THE SPEAKER: All in favor—and if you vote yes on the amendment, it will mean that. All in favor of the amendment say "aye"; opposed.

R. L. NOVY, M.D. (Wayne): Your statement of that is not correct. There was a misunderstanding on that.

THE SPEAKER: Dr. Novy says there was a misunderstanding. Dr. Novy, will you clarify it? You had better do it. You are on the committee.

R. L. NOVY, M.D. (Wayne): I believe there was a misunderstanding.

THE SPEAKER: Come up here and explain what the misunderstanding is, or what your view of it is. We are not trying to vitiate the vote. We are merely trying to know your understanding.

R. L. NOVY, M.D. (Wayne): If you vote for this it means that the limitation on where you must get your directors is set. That is, if you vote yes. If you vote no, you can get a good man wherever he lives, and use him, and so on. If you vote yes, then, you are limiting the choice of good men.

THE SPEAKER: Do you all understand the distinction that Dr. Novy made? He has exactly the same thing in mind as the Speaker had, although he stated it differently. If you vote yes on this amendment it means that you never can have more than one-third of your directors from any one county society, and that you will be limited, as he said, in your choice of men to certain areas, or to the exclusion of certain areas.

V. C. ABBOTT, M.D. (Oakland): Gentlemen, this is a state-wide proposition. We in the various counties ask for representation and a chance to elect our own man.

THE SPEAKER: Dr. Abbott, you are really out of order. I hate to stop you, because this motion has been discussed, and the vote has been called for, and it was merely a matter of clarification of what the motion means. Now, if the motion is not clear, we will allow further clarification. Are there any to whom this motion is not clear?

G. L. MCCLELLAN, M.D. (Wayne): I would like to ask a point of information. Does this intend to include in representation from any particular county the lay members who may reside in that county?

THE SPEAKER: You may answer that, Dr. Abbott.

V. C. ABBOTT, M.D. (Oakland): I believe the Board of Directors can be ten per cent laymen, but it doesn't say anything about the county societies, or county districts.

But in answer to Dr. Novy, I think I should be allowed to say there are a good many councilor societies, just as well as—

THE SPEAKER: Doctor, that is out of order. This is merely a clarification of the motion from now on. I am sorry.

D. R. BRASIE, M.D. (Genesee): Mr. Speaker, with that, the answer should be "yes."

L. G. CHRISTIAN, M.D. (Ingham): I rise to a point of order. The motion, as I understood it, was put, and the "ayes" answered, and the "nays" forgot to, and I think this session is all over—this issue is all over. I think this has been decided.

THE SPEAKER: You are mistaken, Dr. Christian. It isn't decided until the Speaker passes on the vote. You know that as well as I do.

V. C. ABBOTT, M.D. (Oakland): Mr. Speaker, may I ask for a re-opening of the discussion?

THE SPEAKER: You don't have to ask for it. We are going to vote on the other when the time comes.

Now if anybody has anything to add to the clarification of the motion, if there are any who do not understand it, all right, ask your questions, and we will have them explained if we can.

VICTOR E. NELSON, M.D. (Wayne): Does Dr. Novy move to imply that there are no, or fewer good men in the other counties than there are in Wayne?

THE SPEAKER: The Speaker will answer for Dr. Novy on that. The doctor implied nothing of the sort. Now, let's stick to business.

A. V. FORRESTER, M.D. (Wayne): Mr. Speaker, if you get one man over the one-third in one county society, and the next two men will split an even vote, how are you going to pick the next man to move up in his place?

THE SPEAKER: Your question, doctor, I didn't quite hear.

A. V. FORRESTER, M.D. (Wayne): If you have one man over the one-third in one county district, and the next two highest vote men are tied, how are you going to pick that one man?

THE SPEAKER: That will be a technical point. It has nothing to do with it. That would be a matter for the Election Committee. That has nothing to do with the question at issue.

STANLEY W. INSLEY, M.D. (Wayne): May I ask for a point of information? Does not your Board of Directors allow that up to at least two-thirds have to be doctors at the present time?

THE SPEAKER: That is correct.

STANLEY W. INSLEY, M.D. (Wayne): All right, would this be true then: If in our endeavor to get maybe experienced and assured men, a labor leader, or public leader, and most of the labor leaders are in the urban areas, could that possibly cut down, say, Wayne's representatives to three doctors?

THE SPEAKER: That was asked in another way by Dr. McClellan, and they were unable to answer it. That is, Dr. Abbott was unable to answer it.

Are there any other points of information, or questions?

The question then before the House is Dr. Abbott's motion, that Dr. Catherwood's motion be amended, as

Dr. Abbott has read it. We are clear on all except the one point which has been brought up by Dr. McClellan, and by Dr. Insley.

Do you wish to include in this one-third the lay members that might come from that one county, or are you speaking only of the medical members, professional members?

Are you ready for the question?

L. J. Hirschman, M.D. (Wayne): With regard to members of county medical societies, a layman can't be a member of the County Medical Society, so it must refer to the medical members.

The Speaker: I believe that answers our question.

All in favor, then, of Dr. Abbott's amendment, which will be reworded as he read it, say "aye"; opposed.

Will the "ayes" please rise?

Will the "no's" please rise?

There is no question about it, the "ayes" have it.

We will now vote on Dr. Catherwood's motion, as amended, which is that we adopt the committee's report, as amended by Dr. Abbott's motion. All in favor say "aye"; opposed. It is carried.

## XI-6(h). VARDON RESOLUTION NO. 3 (VIII-3c)

A. E. Catherwood, M.D. (Wayne): There is only one more Article, amending Article V. The committee was unanimous in recommending against the adoption of this Article. I so move.

G. L. McClellan, M.D. (Wayne): I support it.

The Speaker: You have heard the motion. Is there discussion? If not, are you ready for the question? All in favor say "aye"; opposed. The motion is carried.

A. C. Catherwood, M.D. (Wayne): I move the acceptance of the report of the committee as a whole.

A. B. Smith, M.D. (Kent): I second the motion.

Alfred LaBine, M.D. (Houghton): I second it.

The Speaker: The motion is to accept the committee report as a whole, as amended. Is there discussion? If not, are you ready for the question? All in favor say "aye"; opposed. The motion is carried.

We have just a few minutes to wait while Dr. Novy is determining a point that is of importance.

L. J. Hirschman, M.D. (Wayne): I move, sir, that the report of the Committee on Michigan Medical Service be transferred to that body, with our recommendation that they adopt it.

The Speaker: You have heard Dr. Hirschman's motion, which is that we transmit our recommendations to the membership of the Michigan Medical Service, and that they adopt them.

F. G. Buesser, M.D. (Wayne): I second it.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed "no." The motion is carried.

We have two other matters to complete this particular meeting. As you will recall, when we first called for the report on the Resolutions Committee, we interrupted the report of the Reference Committee on Amendments to the Constitution and By-Laws, and I will call on Dr. Hess to finish his report.

## XI-5(b). BY-LAWS, CHAPTER 2, SECTION 3 (VII-6)

C. L. Hess, M.D. (Bay): Mr. Speaker, and Members of the House of Delegates: We will continue with the proposed amendments to the By-Laws, and I hope I may be pardoned if I abbreviate some of the discussion on account of the lateness of the hour. On the other hand, I wish to make sufficient discussion so there will be no misunderstanding by any members of the house.

The first amendment is to Chapter 2, Section 3.

Whereas: Chapter 2, Section 3 of the By-laws states that "all registered members at an annual session shall have an equal right to participate in the deliberations of a General Session and to vote on pending questions before the General Session," and

Whereas: the privilege to vote is limited in Article 3 of the Constitution to active members and Members Emeritus,

Be It Resolved: that Chapter 2, Section 3 of the By-Laws be changed to read as follows:

"Section 3. All registered members at an annual session shall have an equal right to participate in the deliberations of a general session, and all active members and Members Emeritus so registered shall have the right to vote on pending questions before the general session."

C. L. Hess, M.D. (Bay): I move its adoption, Mr. Speaker.

Victor E. Nelson, M.D. (Wayne): I second the motion.

The Speaker: All in favor say "aye"; opposed. The motion is carried.

## XI-5(b). BY-LAWS, CHAPTER 3, SECTION 7 (VII-8)

Whereas, Chapter 3, Section 7, Paragraph "N" of the By-Laws provides that all resolutions introduced into the House shall be in duplicate and, whereas: it is desirable to have all resolutions in triplicate so that one copy may be retained by the Secretary for his records,

Be It Resolved, that Chapter 3, Section 7, Paragraph "N" be changed to read as follows:

"(N) All resolutions introduced into the House shall be in triplicate and presented to the Secretary immediately after the delegate has read the same and shall be referred to the proper committee by the speaker before action thereon is taken."

C. L. Hess, M.D. (Bay): The committee is unanimous in its recommendation for the adoption of this resolution. I make that motion, Mr. Speaker.

Carl F. Snapp, M.D. (Kent): I second the motion.

The Speaker: Is there any discussion? If not, all in favor say "aye"; opposed. The motion is carried.

## XI-5(b). BY-LAWS, CHAPTER 3, SECTION 2 (VII-7)

Whereas: Chapter 3, Section 2 of the By-laws states that "a delegate must have been an active member of the Society for at least two years preceding his election, and

Whereas: Article 3 of the Constitution provides that Members Emeritus as well as active members have the right to vote and hold office,

Be It Resolved: that Chapter 3, Section 2 of the By-laws be changed to read as follows:

"Section 2. A delegate must have been either an active member or a Member Emeritus of the Society for at least two years preceding election."

C. L. Hess, M.D. (Bay): That is to make the By-Laws conform with the Constitutionu, and avoid conflict. I move that this Amendment be adopted.

Fred Drummond, M.D. (Bay): I second it.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed. Motion is carried.

## XI-5(b). BY-LAWS, CHAPTER 5, SECTION 9 (VII-9)

Whereas: the Medical Legal Committee is now regularly appointed by the President as provided in Chapter 6, Sections 1 and 4 of the By-Laws, and

Whereas: Chapter 5, Section 9 of the By-Laws also provides for a Medical Legal Committee appointed by the Council,

Be It Resolved: that Chapter 5, Section 9 of the By-Laws, be deleted and Sections 10 to 12 be numbered 9 to 11, respectively.

C. L. Hess, M.D. (Bay): I move the adoption of this Amendment, Mr. Chairman.

Milton A. Darling, M.D. (Wayne): I second it.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed. The motion is carried.

## XI-5(b). BY-LAWS, CHAPTER 6, SECTION 6 (VII-10)

Whereas: the "Committee on Occupational Diseases and In-

dustrial Hygiene" as provided in Chapter 6, Section 6 of the By-laws is now being called the "Committee on Industrial Health" in conformity with similar committees of other medical societies,

Be It Resolved: that Chapter 6, Section 6 of the By-laws have the name of the "Committee on Occupational Diseases and Industrial Hygiene" changed to "Committee on Industrial Health."

C. L. Hess, M.D. (Bay): Mr. Speaker, I move the adoption of this Amendment.

O. D. Stryker, M.D. (Newaygo): I second it.

The Speaker: You have heard the motion. Is there discussion on this motion? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-5(b). BY-LAWS, CHAPTER 9, SECTION 8 (VII-11)

Whereas: Chapter 9, Secttion 8 of the By-Laws refers to the election of delegates by the County Societies, but does not define their term of office in the House of Delegates,

Be It Resolved: that Chapter 9, Section 8 of the By-laws have added the following sentences:

"A delegate, or in his absence the alternate delegate, becomes a member of the House of Delegates when properly registered and seated to the annual session following his election by the County Society. His membership in the House continues until the next annual session."

C. L. Hess, M.D. (Bay): I move the adoption of this resolution, Mr. Speaker.

R. L. Wade, M.D. (Branch): I second it.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-5(b). BY-LAWS, CHAPTER 3, SECTION 3 (VII-12)

Be It Resolved: that Chapter 3, Section 3 of the By-Laws be amended by adding the following sentence:

"Any delegate-elect not present to be seated at the hour of call of the first session may be replaced by an accredited alternate next on the list as certified by the Secretary of the County Society involved."

C. L. Hess, M.D. (Bay): Mr. Speaker, I move the adoption of this Amendment.

E. A. Oakes, M.D. (Manistee): I second it.

The Speaker: You have heard this motion. Is there any discussion? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-6(f). RE: EMERITUS MEMBERSHIPS (VIII-5)

(Doctor Hess read the proposed recommendation pertaining to Emeritus Membership, submitted by delegates from Wayne County.)

C. L. Hess, M.D. (Bay): The committee discussed this at length, and it was felt this was a rather complicated problem, and should be studied at considerable length. Therefore, the recommendation of the committee is that this recommendation be referred to The Council for continued study, or reference to some committee, and reported back at the next annual session.

The Speaker: You have heard this motion. Is there a second to this motion?

R. L. Wade, M.D. (Branch): I second it.

The Speaker: Is there any discussion on the motion that this be referred to The Council for further study? If not, all in favor say "aye"; opposed. The motion is carried.

C. L. Hess, M.D. (Bay): That completes the consideration of proposed amendments to the By-Laws, Mr. Speaker, and I move that the report of this committee be adopted as a whole.

The Speaker: You have heard the motion that the report of the committee, on the amendments to the Constitution and By-Laws be approved as a whole. All in favor say "aye"; opposed. The motion is carried.

That completes our business, I think, for this meeting.

Now it is about five o'clock. Everybody is pretty tired, and I wonder what is the pleasure of the House of Delegates. Should we relinquish our time for our evening meeting, and hold our final third meeting of the House of Delegates tomorrow morning?

(This question was discussed by Drs. Novy, Nelson, McClellan, Walker, and Hirschmann.)

Henry A. Luce, M.D. (Wayne): I move this House of Delegates recess until nine p.m. this evening.

O. D. Stryker, M.D. (Newaygo): I second the motion.

The Speaker: It is moved and seconded that we recess until nine o'clock this evening. Any objection? If not, we will reconvene the House of Directors at nine p.m.

(The meeting recessed at five o'clock.)

## Tuesday Evening Meeting
### September 22, 1942

The third meeting of the 1942 Session of the House of Delegates, Michigan State Medical Society, convened at 10:20 p.m., P. L. Ledwidge, M.D., presiding.

The Speaker: Please come to order.

May we have the supplemental report of the Credentials Committee?

J. J. O'Meara, M.D. (Jackson): Mr. Speaker, I have the credentials of seventy-nine members of the House of Delegates, less than 40 per cent of whom are from any one county.

The Speaker: This report will be accepted as the official roll call. Is there any unfinished business?

A supplementary report from the Reference Committees on Reports of The Council is next.

### XI-6. RE: MEDICAL LEGAL INSURANCE (VIII-10)

Henry A. Luce, M.D. (Wayne): Regarding the resolution introduced by Dr. O'Meara, your Reference Committee in the consideration of this resolution interprets it as the registration of a complaint by the medical profession against the practice of insurance companies in cancelling policies at certain age limits for individuals who are still in active practice.

It is our understanding that The Council of the MSMS will consider at their next meeting a group type of insurance similar to that in force at the present time in Wayne County. If approved every member of the State Society will be contacted and given the advantage of coverage that the resolution expresses desire for.

With this as additional information on the subject of insurance your committee recommends the adoption of the O'Meara resolution.

Mr. Speaker, I move its adoption.

W. B. Harm, M.D. (Wayne): I second the motion.

The Speaker: Is there discussion on this motion? The motion is to accept the report of the Reference Committee. All in favor say "aye"; opposed "no." The motion is carried.

### XI-6. RE: MSMS POSTGRADUATE FOUNDATION (VIII-8)

Henry A. Luce, M.D. (Wayne): Regarding the resolution presented by Dr. Buesser: Your committee approves the adoption of this resolution. Mr. Speaker, I so move.

O. D. Stryker, M.D. (Newaygo): I second it.

The Speaker: Is there discussion on this motion? If not, all in favor say "aye"; opposed. It is carried.

### XI-6. RE: SOCIAL SECURITY EXPANSION (VIII-7)

Henry A. Luce, M.D. (Wayne): The resolution in-

troduced by Dr. Smith: Your Reference Committee recommends the adoption of this resolution. Mr. Speaker, I so move.

J. J. O'Meara, M.D. (Jackson): I second it.

The Speaker: Is there any discussion? If not, all in favor say "aye"; opposed. The motion is carried.

### XI-6. RE: NATIONAL PHYSICIANS COMMITTEE (VIII-9)

Henry A. Luce, M.D. (Wayne): The resolution introduced by Dr. Christian: Your committee recommends the adoption of this resolution, and I so move.

A. E. Catherwood, M.D. (Wayne): I second it.

The Speaker: You have heard the motion. Is there discussion on this motion?

W. B. Harm, M.D. (Wayne): I would like to know, just offhand, if Dr. Luce is telling the Michigan State Medical Society what this committee can do for us that the AMA can't do, and why the AMA can't do it. They represent organized medicine. If there is anything to be done for us, why can't they do it?

Henry A. Luce, M.D. (Wayne): That question has been discussed, and argued at great length in the House of Delegates of the American Medical Association. There are many things connected with the administrative part of the American Medical Association due to the fact that the House of Delegates usually meets only once a year. The National Physicians Committee is a going organization. The American Medical Association has been reluctant to step out into the political field. A continuous program is necessary, and for that reason the National Physicians Committee was organized that it might have a continuous organization to meet these political problems, and act as an information center, not so much as a political organization, but to distribute information that the public may be educated.

The Michigan State Medical Society for years has had a Public Relations Committee. We tried several times to get a Public Relations Committee established in the AMA. We were not successful. Then the National Physicians Committee came along, and answered the same purpose, and it does it better.

(The members arose and applauded as Colonel Henry R. Carstens, M.C., President of the Society, was escorted into the room.)

I might say at this point, the state society has been up against the same proposition in that an organization that devotes some of its energies toward legislative activities falls into a different tax category. If the AMA pursued a legislative program we would fall into a different tax category under the Federal Government.

The Speaker: Is there further discussion? If not, all in favor of Dr. Luce's motion that we accept the report on this resolution say "aye"; opposed. The motion is carried with one dissenting vote.

Henry A. Luce, M.D. (Wayne): Mr. Speaker, that concludes all matters referred to the Reference Committee.

The Speaker: There being no further Reference Committee reports, we come to the election of officers. I would like to interrupt for a minute.

A situation arose this morning which we regretted very, very much. Dr. Nesbitt was elected the delegate of Alpena-Alcona-Presque Isle Counties. His alternate, Dr. Miller, unfortunately, was killed during the summer. Another alternate was elected. Dr. Nesbitt has since gone into Service, but he did not notify his county society that he would not be a delegate. It was his full intention to be here as a delegate. He applied for leave, and the sad part was that his leave was dated September 22 instead of September 21. Consequently, he was not here last night, and the alternate had been seated. I am just going to ask Dr. Nesbitt to rise so we can all see what a man looks like who is willing to come like that to serve his society. Thank you, Dr. Nesbitt.

## XII. Elections

### XII-1. COUNCILOR OF THE SEVENTH DISTRICT

We are now ready for elections, and the first is the election to the Seventh Councilor District. Nominations are now in order.

W. H. Boughner, M.D. (St. Clair): I wish to place in nomination a man who has been in active practice for twenty-seven years, and who has acted as our Councilor for three years. I would like to nominate Dr. T. E. DeGurse of Marine City.

The Speaker: Dr. DeGurse is nominated.

F. G. Buesser, M.D. (Wayne): I move the nominations be closed, and the Secretary instructed to cast a unanimous ballot for Dr. DeGurse.

Several Members: I second it.

The Speaker: All in favor say "aye"; opposed "no." The motion is carried.

The Secretary: The vote is so cast.

The Speaker: The vote is so cast by the Secretary.

### XII-2. COUNCILOR OF THE EIGHTH DISTRICT

Next is the Councilor to the Eighth District. Nominations are in order.

M. G. Becker, M.D. (Gratiot): I wish to nominate Dr. W. E. Barstow for Councilor of the Eighth District. Bill Barstow has been our Councilor for the past six years, and during that period he has expended a tremendous amount of time and work in the performance of his duties. He has the welfare of the Eighth District at heart. It gives me great pleasure to nominate W. E. Barstow of St. Louis for the Eighth District.

The Speaker: Dr. Barstow is now nominated. Are there other nominations in addition to Dr. Barstow?

C. E. Toshack, M.D. (Saginaw): I move that the nominations be closed, and the Secretary be instructed to cast a unanimous ballot for Dr. Barstow.

O. D. Stryker, M.D. (Newaygo): I second the motion.

The Speaker: The motion is that the nominations be closed, and the Secretary be instructed to cast a unanimous ballot for Dr. Barstow. All those in favor say "aye"; opposed "no." Carried.

The Secretary: I do so cast.

The Speaker: The Secretary so casts.

### XII-3. COUNCILOR OF THE NINTH DISTRICT

The next is the Ninth District, Dr. E. F. Sladek's term now terminating.

B. B. Bushong, M.D. (Grand Traverse): I would like to nominate Dr. E. F. Sladek as Councilor for the Ninth District to succeed himself.

The Speaker: Dr. E. F. Sladek is nominated. Are there additional nominations?

E. A. Oakes, M.D. (Manistee): I move the nominations be closed and the Secretary be instructed to cast a unanimous ballot for Dr. Sladek as Councilor of the Ninth District.

The Speaker: Dr. Oakes has moved that the nominations be closed, and the Secretary be instructed to cast a unanimous ballot for Dr. Sladek.

L. J. Hirschman, M.D. (Wayne): I second the motion.

The Speaker: All in favor say "aye"; opposed. Carried. The Secretary will please cast the vote.

The Secretary: I have so cast.

The Speaker: The Secretary so casts.

### XII-4. COUNCILOR OF THE TENTH DISTRICT

Fred Drummond, M.D. (Bay): I wish to place in nomination the name of the incumbent, Dr. Roy C. Perkins, as Councilor for the Tenth District.

C. L. Hess, M.D. (Bay): I move the nominations be closed, and the Secretary be instructed to cast a unanimous ballot for Dr. Perkins.

H. W. Plaggemeyer, M.D. (Wayne): I support it.

The Speaker: You have heard the motion, supported by Dr. Plaggemeyer. All in favor say "aye"; opposed. Carried.

The Secretary: I do so cast.

The Speaker: The Secretary so casts.

## XII-5. DELEGATES TO AMA

We come now to the election of Delegates to the American Medical Association. Three men's terms are ending, Dr. Henry Luce of Detroit, Dr. T. K. Gruber of Eloise, and Dr. Claude Keyport of Grayling. The By-laws call for nominating a number equal to or more than the number of delegates to be elected, so nominations are now in order for delegates to the AMA.

Edward M. Vardon, M.D. (Wayne): Mr. Speaker, I think all three incumbents are worthy of reëlection. Personally, I would be glad to nominate any one or all of them. I would like to nominate a man whom we all respect, and whom we know through his years of service is well worthy of that, Dr. Henry A. Luce.

The Speaker: Dr. Henry A. Luce is nominated.

Victor E. Nelson, M.D. (Wayne): I wish to place in nomination the name of Thomas K. Gruber, M.D.

C. L. Hess, M.D. (Bay): I wish to nominate Dr. C. R. Keyport.

The Speaker: Dr. Nelson of Wayne nominates Dr. Gruber, and Dr. Hess of Bay nominates Dr. Keyport. Are there any further nominations?

Louis J. Gariepy, M.D. (Wayne): I nominate Dr. G. L. McClellan.

G. L. McClellan, M.D. (Wayne): I wish to withdraw my name.

F. G. Buesser, M.D. (Wayne): I move the nominations be closed, and the three men designated have a unanimous ballot cast for them by the Secretary.

V. N. Butler, M.D. (Wayne): I second the motion.

The Speaker: The motion is to close the nominations, and cast a unanimous ballot for the three nominees. Are you ready for the question? All in favor say "aye"; opposed. Carried.

The Secretary: I do so cast.

The Speaker: The Secretary so casts.

## XII-6. ALTERNATE DELEGATES TO AMA

The Speaker: Next is the election of alternate delegates to the AMA. Nominations are now in order, and the same rule holds, we have to nominate at least three.

O. D. Stryker, M.D. (Newaygo): Mr. Speaker, I move that Dr. Carl F. Snapp be nominated to succeed himself as alternate delegate.

The Speaker: Dr. Carl F. Snapp's name has been placed in nomination.

R. L. Wade, M.D. (Branch): Mr. Speaker, I nominate Dr. C. S. Gorsline.

The Speaker: Dr. Gorsline's name is placed in nomination.

Carl F. Snapp, M.D. (Kent): I would like to place in nomination the name of Dr. Robert H. Denham to succeed himself as alternate.

O. D. Stryker, M.D. (Newaygo): Mr. Speaker, I move the rules be suspended, and that a unanimous ballot be cast for these three nominees, and their names be placed in a hat and drawn out in order, and they be given their seniority in the order in which they are drawn.

Harry F. Dibble, M.D. (Wayne): I second the motion.

The Speaker: The motion is to suspend the rules requiring a two-thirds vote. Those in favor of this motion please rise. Those opposed please rise. The motion is carried.

The Chair will appoint Dr. Buesser to draw the names. The first one drawn will be the first one in order of seniority.

The first, or senior alternate, is Dr. Gorsline.

The second is Dr. Snapp.

The third is Dr. Denham.

## XII-7. PRESIDENT-ELECT

Nominations for President-Elect are now in order.

A. E. Catherwood, M.D. (Wayne): Mr. Speaker, I want to place in nomination the name of one of our oldest members of the House of Delegates from point of service, a man who has served this society as delegate to the AMA for a quite a number of years, Dr. Claude R. Keyport of Grayling.

C. S. Gorsline, M.D. (Calhoun): Mr. Speaker, I wish to second the nomination of Dr. Keyport.

The Speaker: Dr. Keyport is nominated.

G. L. McClellan, M.D. (Wayne): Mr. Speaker, I feel it is always a pleasure to place in nomination a man who has rendered valuable service to an organization. Because of that I take pleasure in nominating a man who has served this organization well over a period of many years. He is a member of The Council. He has presided over the deliberations of this House with both ability and dignity. His qualifications are of the highest. It is my pleasure to place in nomination Dr. Philip Riley.

L. G. Christian, M.D. (Ingham): I wish to second the nomination of Dr. Riley.

C. L. Hess, M.D. (Bay): Mr. Speaker, I move the nominations be closed.

L. G. Christian, M.D. (Ingham): I second the motion.

The Speaker: This requires a vote by ballot, and the Chair will appoint as tellers Dr. Whittaker of Wayne, Dr. Wenger of Kent, and Dr. Baker of Oakland.

Gentlemen, while the tellers are passing the ballots, Dr. James O'Meara of Jackson County has a suggestion to make.

## VI-2. FELICITATION TO PAST-SPEAKER FRANK E. REEDER

J. J. O'Meara, M.D. (Jackson): Gentlemen, you older men miss the familiar face of one, who is not with us tonight; one of the men who has been a member and a delegate for the greatest number of years, outside of Dr. Wessinger, is not among us. He has been ill in the hospital but is now at home in Flint. He is a delegate to the AMA.

I think this body as a whole ought to send a bouquet of roses to Dr. Frank E. Reeder of Flint, wishing him godspeed and a quick recovery.

Alfred LaBine, M.D. (Houghton): I second that motion.

The Speaker: You have heard the motion. All in favor say "aye"; opposed. The motion is carried unanimously by a standing vote.

A. H. Whittaker, M.D. (Wayne): Mr. Speaker, your Committee of Tellers begs to report Dr. Keyport received forty-six votes, and Dr. Riley received thirty-seven votes for President-Elect of the Michigan State Medical Society.

The Speaker: Dr. Keyport is the President-Elect. The Sergeant-at-Arms will please escort Dr. Keyport to the rostrum.

J. J. O'Meara, M.D. (Jackson): The Sergeant-at-Arms in turn reports that this is the most pleasant duty he has had to perform all during this convention.

(The members arose and applauded as Claude R. Keyport, M.D., President-Elect, was escorted to the platform.)

J. J. O'Meara, M.D. (Jackson): Mr. Speaker, allow me to introduce the President-Elect.

Claude R. Keyport, M.D. (President-Elect): Mr.

Speaker, Members of the House of Delegates: This honor which you have given me, a man who is just an ordinary country doctor, is not only an honor to me, but it is an honor to all of the men who have done the same things that I have done—gone out into the sticks and tried to practice good, honest medicine. At the present time we are in war. A great many of our doctors in the State Society are in the service. For the duration we do not know how many meetings we will have, but I assure you that when I am President, I will devote every bit of energy I have to that honor which you have so kindly given me. Thank you.

THE SPEAKER: I shall ask Dr. Stryker, our last year's Speaker, to please take the Chair.

(Doctor Stryker assumed the Chair.)

## XII-8. SPEAKER OF HOUSE OF DELEGATES

CHAIRMAN STRYKER: Our next order of business, gentlemen, is the election of the Speaker of the House of Delegates. Nominations are now open.

L. J. HIRSCHMAN, M.D. (Wayne): Mr. Speaker, I think we have all been very much gratified today by the splendid way in which the business of this House of Delegates has been conducted. I take great pleasure at this time in nominating Dr. P. L. Ledwidge of Detroit to succeed himself.

ROGER V. WALKER, M.D. (Wayne): I want to second the nomination of Dr. Ledwidge and I move that the nominations be closed, and the Secretary be instructed to cast a unanimous ballot.

W. B. HARM, M.D. (Wayne): Mr. Speaker, might I be given the privilege, at this time, of seconding the nomination of Dr. Ledwidge, for the fair, impartial way in which he has conducted this meeting.

CHAIRMAN STRYKER, M.D.: You have heard the motion, that the nominations be closed, and the Secretary to cast a unanimous ballot for Dr. Ledwidge as Speaker. All in favor say "aye"; opposed the same. Dr. Ledwidge is elected.

(Speaker P. L. Ledwidge resumed the Chair.)

THE SPEAKER: I appreciate very much the honor of being chosen your Speaker again. I thank you for your continued confidence.

I want to thank, especially, all members of the House of Delegates. I thank you for coming, and I thank you for carrying out in a way better than I thought you could the request that Dr. Penberthy made in his telegram, read at the dinner last night. If you will recall, Dr. Penberthy asked that you be kind to your Speaker. I am sure that I didn't know you could be so kind, and I doubt if he did.

The next order of business is the election of a Vice Speaker, and nominations are now in order.

## XII-9. VICE SPEAKER OF HOUSE OF DELEGATES

A. B. SMITH, M.D. (Kent): Mr. Speaker, I wish to nominate to the office of Vice Speaker, Dr. George H. Southwick.

THE SPEAKER: Dr. Southwick's name is now in nomination.

J. J. O'MEARA, M.D. (Jackson): I second the nomination of Dr. Southwick.

HARRY F. DIBBLE, M.D. (Wayne): I move the nominations be closed, and the Secretary be instructed to cast the unanimous ballot for Dr. Southwick.

A. E. STICKLEY, M.D. (Ottawa): I second the motion.

THE SPEAKER: All in favor of this motion say "aye"; opposed. The motion is carried, and Dr. Southwick will be our Vice Speaker for next year.

That concludes the business of our session.

L. J. HIRSCHMAN, M.D. (Wayne): Mr. Speaker, now that we have concluded, before we adjourn, let's have a little pleasure. I would like to hear a few words from the gentleman who was robbed of his opportunity to speak to us yesterday, and that gentleman is Colonel Carstens, our President.

THE SPEAKER: Colonel Carstens.

PRESIDENT HENRY R. CARSTENS: Mr. Speaker, and Delegates: This is certainly an unusual time in the last three-quarters of a century of the Michigan State Medical Society. The Society has passed through wars before, and still at this time it is a war different from any that the world has previously ever known.

Our record so far in furnishing medical officers to the military service is a very good one, and this fall practically everybody available will be in. A tremendous job is ahead of us. Those at present in the military service are fairly busy. I know that we aren't always as busy as those who have to stay at home. But it is going to be an exceedingly difficult time for those of our members who are left to practice medicine and carry on the many duties which are not only all those which have existed right along, but many additional ones to come in the future. The problem is a grave one.

The delegates I know deliberated again since last night, and as has been the experience of all of the members for some years, the true answer in general has been found to many of the problems that have confronted us. This has always been the case.

We have again elected worthy officers to serve us for the coming year. To all of you, I extend my good wishes. I am sorry I couldn't have been here last night. I luckily was able to get here today, and probably will be here for several days of this present meeting.

What the future has in store for all of us is rather hard to tell.

To all of you, my best wishes, and good luck.

CHAS E. DUTCHESS, M.D. (Wayne): Mr. Speaker, due to some difficulties which we had in Detroit some two or three years ago, we have imposed upon the hospitality of Grand Rapids for two years, and as far as I am concerned, I hope we do for three or four more. I move we thank the Kent County Medical Society for playing host to us for the last two years.

THE SPEAKER: You have heard the motion. Is there a second?

ROGER V. WALKER, M.D. (Wayne): I second the motion.

THE SPEAKER: It is moved that we thank the Kent County Medical Society for the hospitality extended us. All in favor say "aye"; opposed "no." Carried unanimously.

Thank you, very, very much.

A. V. WENGER, M.D. (Kent): Grand Rapids appreciates those thanks, and we invite you to come another year.

THE SPEAKER: Before we close, your Speaker would like to acknowledge with gratitude the help that has been given him, and I am going to mention just a few who I think deserve special thanks.

First, I want to thank every delegate who came. I want to thank, especially, the Chairmen, and especially the Chairman of the Resoutions Committee, and every member of his committee. To them goes a little special thanks, because that was the toughest assignment of this year's work, and we knew it very well when we asked you to take it.

I want to thank, too, Dr. Foster, our Secretary. He makes things very easy for the Speaker, and for everybody else, where there is work to be done.

I want to thank Bill Burns and his office force. I know they are paid for their work, but the kind of service they give cannot be bought. It has to be given, and we appreciate it.

I think that is all, gentlemen. I thank everyone, one and all.

A. E. CATHERWOOD, M.D. (Wayne): I move we adjourn.

W. D. BARRETT, M.D. (Wayne): I second the motion.

THE SPEAKER: We are adjourned.

(The Session adjourned at eleven-twenty o'clock.)

# MICHIGAN'S DEPARTMENT OF HEALTH

H. ALLEN MOYER, M.D., Commissioner, Lansing, Michigan

### INCREASE IN TUBERCULOSIS LIKELY IN MICHIGAN

An increase in reported cases of tuberculosis in Michigan is a likely wartime development if the experience of other war periods is repeated, according to the Michigan Department of Health. Saving fact is that those areas of the state where tuberculosis is likely to show largest gains—the industrialized sections—are best equipped to combat the disease.

Although Michigan war plants are attracting large numbers of job seekers from other sections of the country where tuberculosis incidence normally is greater, the use of the x-ray camera by many Michigan employers is helping to uncover cases which could offer problems of proper care later.

Better living conditions, generally, in Michigan's industrial areas, better medical facilities and more hospitals equip these areas to meet any emergency in better fashion than can the agricultural sections of the state.

The United States' participation in the last war was too brief to have furnished any significant figures on tuberculosis in wartime but Europe's experience was that highly industrialized nations met their tuberculosis problem in much better fashion than did predominantly agricultural countries. England and Germany, both highly industrialized, had substantial increases in amounts of tuberculosis but both of these nations in a relatively short time, or by about 1925, had brought the disease under satisfactory control. In the case of Germany, particularly, the situation after the war was better than in the prewar years.

Italy, an agricultural nation, had a relatively better position than Germany before the last war but lost it afterward. Hungary, a typical example of an agricultural state where about 80 per cent of its population is engaged in food production, had a bad tuberculosis record during the war and conditions remained bad afterward.

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### REPORT ON POLIOMYELITIS RESEARCH GIVEN TO PHYSICIANS

Members of the Michigan State Medical Society, at their Grand Rapids meeting, were supplied a "progress report" by Dr. S. D. Kramer who is conducting research in the field of poliomyelitis in the laboratories of the Michigan Department of Health under the co-sponsorship of the National Foundation for Infantile Paralysis, Inc.

Dr. Kramer reported that during the last year his experiments have added weight to earlier laboratory findings which indicated infection with one strain of poliomyelitis virus can be prevented in certain small animals by the use of human immune serum. In commenting on these experiments, he emphasized that they do not justify any comments on the possibility that the disease might be prevented in man.

Much experimental work remains to be done, according to Dr. Kramer, before any attempts can be made to determine the effectiveness of a biologic product in the prevention of the disease among humans. "We are hopeful," he concluded, "that experiments now in progress in our laboratory may yield sufficient grounds to justify human trial."

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### SYPHILIS LEADING ALL OTHER COMMON COMMUNICABLE DISEASES

With syphilis now leading among major communicable diseases in Michigan—the 9,074 cases reported to the Michigan Department of Health from January 1 through September representing a gain of 745 over the corresponding period in 1941—reasonable assumption is that the state is experiencing a normal wartime upturn in prevalence of the disease. It is pointed out that every war has been accompanied by greater numbers of syphilis and gonorrhea cases.

An intensive venereal disease control program is being carried on in military and industrial areas in Michigan by Army and Navy physicians, private physicians, local health departments and the Michigan Department of Health. The new effective drugs for the treatment of syphilis and gonorrhea are distributed free to physicians by the state health department. Special emphasis is being placed on the necessity for early treatment by a qualified physician and, where necessary, Michigan's new venereal disease control law is being used to compel infected persons to take treatment.

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### MICHIGAN'S DEATH RATE IS UNDER NATION'S RECORD LOW

Michigan's 1941 death rate—9.83 per 1,000 population—is under the nation's record low average of 10.5 last year according to figures released by the Bureau of Records and Statistics of the Michigan Department of Health.

Total of Michigan deaths was 52,671 last year, for the nation 1,395,507 as reported by the U. S. Census Bureau.

The state's rate dropped correspondingly with that for the nation. Michigan's 1940 rate was 9.91, the nation's 10.8.

Michigan's lowest death rate in the last decade was established in 1933—9.6 per 1,000 population.

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The average 10,000-ton merchant ship requires approximately a quarter of a million pounds of *copper* and its alloys; while a single battleship such as the U.S.S. Washington, requires two million pounds of copper and its alloys.

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# Woman's Auxiliary

## "WE SHALL DO OUR PART"

In assuming the duties of president of the Woman's Auxiliary to the Michigan Medical Society for this coming year, I feel very humble and I appreciate to the fullest extent possible the honor conferred upon me by the members of this organization.

Mrs. G. L. Willoughby, Flint, President, Woman's Auxiliary MSMS

In view of the fact that these are rapidly changing and critical times, we must be prepared to meet them. We must find our place in the community and do our job whether it be Red Cross, First Aid, or War Service, ever mindful of the Auxiliary. No matter how small our group is, we must carry on.

The public is demanding health education and if we are not able to give it to them the advertisers of nostrums will. Let us work with the Medical Society to keep the public correctly informed. We must also help them guard against government control of medicine now, and after the war. We should help to preserve the high standards that the Medical Profession has always maintained.

Our program chairman, Mrs. Galen Ohmart, has material available for the use of county program chairmen. At our Atlantic City convention, Mrs. Frank Haggard, our National President, urged that one program out of every six be devoted to health.

We hope that all County Auxiliaries will participate in the Radio Contest for High School students, which is being sponsored by the Woman's Auxiliary to the Michigan State Medical Society and the Michigan Tuberculosis Association.

A resolution was introduced in the House of Delegates of the Michigan State Medical Society explaining the great need of *Hygeia,* the only health magazine approved by the American Medical Association, written in a language the lay people may understand. It was further recommended that the Woman's Auxiliary in every county take *Hygeia* as one of its chief projects this year.

The Student Loan Fund is now available for use by all County Auxiliaries for assistance of selected medical students. Applications may be procured from Mrs. A. V. Wenger, of Grand Rapids.

*The Bulletin* is as necessary to our members as THE JOURNAL is to our husbands. It will give you an idea of the extensiveness of the Auxiliary's work and accomplishments.

The Woman's Auxiliary has always measured up to whatever task was assigned it, and I feel confident that each and every officer and member will do her part to aid the organization so that those serving in the combat zones will know that their welfare is being protected.

MRS. GORDON L. WILLOUGHBY.

### WOMAN'S AUXILIARY OFFICERS AND COMMITTEE CHAIRMEN, 1942-43

*President*—Mrs. Gordon L. Willoughby, Flint
*President-Elect*—Mrs. John J. Walch, Escanaba
*Vice President*—Mrs. H. L. French, Lansing
*Secretary*—Mrs. William B. Hubbard, Flint
*Past President*—Mrs. William J. Butler, Grand Rapids
*Program*—Mrs. Galen Ohmart, Detroit
*Public Relations*—Mrs. L. G. Rawley, Pontiac
*Organization*—Mrs. Oscar Stryker, Fremont
*Press*—Mrs. Hira Branch, Flint
*Legislation*—Mrs. F. T. Andrews, Bay City
*Revision*—Mrs. Roger V. Walker, Detroit
*Hygeia*—Mrs. Robert L. Novy, Detroit
*Finance*—Mrs. H. L. French, Lansing
*Parliamentarian*—Mrs. Wm. J. Butler, Grand Rapids
*Historian*—Mrs. E. J. McIntyre, Lansing
*Exhibits*—Mrs. Arthur Kretchmar, Flint
*Bulletin*—Mrs. John J. Walch, Escanaba
*Archives*—Mrs. L. G. Christian, Lansing
*Student Loan Fund*—Mrs. A. V. Wenger, Grand Rapids
*District Councilors*—Mrs. Elmer L. Whitney, Detroit; Mrs. Paul R. Urmston, Bay City; Mrs. John J. Walch, Escanaba; Mrs. C. L. Bennett, Kalamazoo.

* * *

### BRONCHIAL ASTHMA

Turnley has compared the process involved in the production of the asthmatic state to that of a shell load. The explosive charge is allergy, the propelling charge, infection, and the ignition charge, all excitants, such as pollens, epidermals, foods, climates, and noxious gasses. Any one of these primers may set fire to the powder, causing the explosion called bronchial asthma. This graphic description is, in general, true; however, the propelling charge, although it is always present, will sometimes present a difficult problem both to discover and to eliminate, as a metabolic, nervous or psychic factor may complicate the infection.

In what percentage of patients is this explosive charge present? It is estimated that 10 per cent of the population have some major allergy and 50 per cent have some minor allergy. Yet, of those having major allergic manifestations, only 2 per cent develop bronchial asthma.

Not infrequently patients are seen who have typical bronchial asthma yet do not show, upon thorough study by the best methods available at the present time, any etiological factors. These may be explained by the following two theories:

1. They may be considered as merely resembling allergic cases of bronchial asthma whereas, in reality, the etiology and mechanism are different. In this category should be included cardiac asthma, bronchogenic carcinoma, mediastinal growths, and so on.

2. They are ordinary cases of allergic bronchial asthma but the allergist is unable to isolate the etiologic agents because of our present limitation of knowledge, or does not study the patient and his environment to the degree necessary.

Commando raids are dramatic and do their share in helping us win the war. Less spectacular, but equally important to Victory, is the role of nutrition in building a strong hard-hitting America.

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*The 1943 "Postgraduate Conference on War Medicine"*—the 78th Annual Meeting of the Michigan State Medical Society—will be held at the Statler Hotel, Detroit, the week of September 20, 1943. The business of the Society will be conducted by the House of Delegates on Monday and Tuesday, September 20 and 21, the Scientific Assemblies will be held Wednesday, Thursday, Friday, September 22, 23 and 24.

*Give me health* and a day and I will make the pomp of emperors ridiculous.—RALPH WALDO EMERSON.

* * *

*The Michigan Society for Crippled Children* held its 21st Annual Meeting in Detroit November 6-7.

* * *

*W. B. Harm, M.D.,* Detroit, published, in the *Detroit Medical News* of October 12, a résumé of the proceedings of the 1942 MSMS House of Delegates.

* * *

*The 22nd Annual Public Health Conference* of the Michigan Public Health Association will be held at the Pantlind Hotel, Grand Rapids, November 12-13.

*"It rains on the just* as well as on the unjust fellow, but usually on the just because the unjust has the just's umbrella."

* * *

*The American Medical Association* meeting of 1943, scheduled for San Francisco, has been cancelled, due to the war.

* * *

*The American College of Surgeons* Clinical Congress scheduled for Cleveland, November 17 to 20, 1942, has been cancelled. The Army will take over the Cleveland Civic Auditorium in November.

* * *

*L. S. Selling, M.D.,* Detroit, is the author of an original article which appeared in the JAMA, September 26, entitled "the Ophthalmologist's Place in the Prevention of Traffic Accidents."

* * *

*The "Honor Roll"* of the *Kent County Medical Society*—a list of all its military members—was published in the October Bulletin of the Kent County Medical Society. The list totalled seventy-nine physicians.

* * *

*The editor of the Oakland County Medical Society Bulletin,* October issue, publishes not only a list of Oakland County physicians in Word War II, but also a

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roster of those who served in the World War of 1917-18. Two "veterans" of World War I are serving in the present conflict: Lt. Colonel H. A. Furlong, and Major Perry V. Wagley.

* * *

*Item from the Bulletin of the Dickinson-Iron County Medical Society:* "Wanted—A Volunteer; to take over the detail work of our connection with the National Physicians' Committee. Someone please step up. Thanks."

* * *

*The Genesee County Medical Society Bulletin* publishes each month photographs of its society members who have joined the armed forces of the United States, as well as communications received from its physicians in the Army and Navy.

* * *

*The American Academy of Physical Medicine* will hold its 20th Annual Session at the Statler Hotel, Boston, October 14 to 17, 1942. Programs may be obtained from Herman A. Osgood, M.D., Secretary, 144 Commonwealth Avenue, Boston.

* * *

*Lester J. Johnson, M.D.,* Ann Arbor, Councilor of the 14th District, spoke to the Grand Rapids Lions Club on Tuesday, September 22, on the occasion of the MSMS Annual Meeting in Grand Rapids. His subject was "The Doctor's Job in Wartime."

* * *

**Battle Creek Hospital Program Authorized**

The war department announced today this contract and authorization:

Authorization of alterations and new installations at the Percy Jones hospital, Battle Creek, Mich., at a cost of approximately $1,000,000. Construction to be supervised by the Chicago district engineer.—*Lansing State Journal,* Oct. 15, 1942.

* * *

*"Gastroenterology"* is the name of a new journal to be published by the American Gastroenterological Association. The first issue will be released January 1, 1943, and will appear monthly thereafter. W. C. Alvarez, M.D., and A. C. Ivy, M.D., will be Editor and Assistant Editor. Manuscripts are invited, and should be sent to Gastroenterology, 303 East Chicago Avenue, Chicago, Illinois.

* * *

*Physicians,* when travelling to attend an emergency case, can secure an air-travel priority, according to Harold Olsen, District Traffic Manager of the Pennsylvania Central Airlines. Mr. Olsen cites as examples: a physician en route to attend an emergency case which may result fatally without his presence, will be granted priority; or a child en route to a hospital for an emergency operation of some unusual or critical nature will be granted a priority by the Regional Priority Office, Detroit City Airport (Telephone: Prospect 2800).

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*"Nutrition in Medicine, Dentistry and Industry"* is the subject of an Institute under the auspices of the Wayne County Medical Society, the Detroit District Dental Society, the Detroit Physiological Society, the Detroit Pediatric Society, and the Engineering Society of Detroit. The first lecture in the Institute series was given October 12, by Tom Spies, M.D., of Cincinnati, under the auspices of the Wayne County Medical Society. Other lectures will be presented October 29, November 19, December 14 and January 15, all in Detroit.

* * *

*Due to a professional affiliation* between the Department of Nursing, College of Physicians and Surgeons of Columbia University, and the Neuropsychiatric Institute of The Hartford Retreat, students who are receiving advance time credit in the Department of Nursing at Columbia, will undertake an intensive two-months course in Neuropsychiatric Nursing at the Institute, under the direction of the Institute's Medical and Nursing Staff. The affiliation is limited to those students who have received Universiyt degrees. Fifteen students will begin classes in December.

* * *

*The Michigan Pathological Society* held its autumn meeting at Providence Hospital, Detroit, on October 10. Twenty-eight attended. The meeting was held as a seminar on interesting and instructive cases. Cases were submitted and presented by Drs. D. G. Christopoulos, R. T. Lossman, Lawrence Berman, Gabriel Steiner, Bert Stofer, J. A. Kasper, W. L. Brosius, D. H. Kaump, G. L. Bond, Mark E. Maun, D. C. Beaver and W. G. Gamble, Jr.

The next meeting will be held at Henry Ford Hospital, Detroit, on Saturday afternoon, December 12. Members of the profession who are interested in pathology are invited to attend.

* * *

**Your Friends**

Abbott Laboratories, North Chicago, Ill.
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Bard-Parker Company, Inc., Danbury, Conn.
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Ernst Bischoff Company, Ivoryton, Conn.
The Borden Company, New York, N. Y.
Bruce Publishing Company, St. Paul, Minn.
Burroughs-Wellcome & Co. (U. S. A.), Inc., New York, N. Y.

The above ten firms were among the exhibitors at the 1942 MSMS annual meeting in Grand Rapids and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or services.

* * *

*"Remember* that the doctor has only twenty-four hours in his day. He must sleep and he must eat. Help him protect his own health so he can take care of yours," is an admonition in a notice developed by the Nassau County (Long Island, N. Y.) Medical Society, to be posted in physicians' waiting rooms. Further, each physician who submits a report of his periodic physical examination to the Nassau County Medical Society is presented with a lapel insignia to be worn as an indication that he has joined in the Physicians'

Health Conservation Program of his county medical society.

Congratulations, Nassau County, on this progressive doctor-conservation program!

* * *

**Stay Well**

A recent headline in *Newsweek* said, "Services' call for doctors meant U. S. must stay well." And the estimates back that up thoroughly.

"The country has 176,000 physicians—of which 22,000 have been taken by the army. If the goal of a 9,000,000-man army is attained, about 58,000 doctors—one-third of the nation's total—will be in uniform. And the situation is about the same in the case of nurses. We have 300,000 trained nurses—and 50,000 will be required for the army and the navy by the middle of next year.

"No one can complain about this—America's fighting men will and must have the best medical attention possible. What it means is that all remaining doctors must work far harder and longer than ever before. The medical schools are stepping up the tempo of medical training as far as practical. And, in addition, civilians must help. Here is how *Newsweek* put it: 'The civilian will also have to pull his oar in the boat. Instead of expecting punctual appointments and home visits, he will have to wait his turn in the doctor's waiting room. Preventive medicine will loom larger. Face-lifting operations will have to yield precedence to emergency appendectomies. By the war's end, hypochondriacs and the bedside manner alike may well have become part of American's past.'

"This is a small 'sacrifice' indeed for the civilian to make in the interest of our soldier's health—as well as the health of those who stay at home. Give our doctors this kind of sensible coöperation—and America's standards of medical care will remain the highest in the world."—*Coldwater* (Mich.) *Daily Reporter,* Oct. 8, 1942.

* * *

**Federal Legislation and Trends**

1. HR-7164, the bill amending the Soldiers' and Sailors' Civil Relief Act of 1940, became law on October 6, when the President's signature was affixed. This legislation effects many changes in the Act, making available further relief and benefits to persons in military service, particularly as to leases, storage liens, benefits accorded dependents, and insurance premiums. See JAMA of October 17, 1942, for an analysis of HR-7164.

2. HR-7534 re disability and hospitalization benefits under the Social Security Act, was introduced September 9, into the U. S. House of Representatives. Among other proposed benefits, this bill would give to each person holding a Social Security number hospitalization benefits of not less than $3.00 nor more than $6.00 for each day of hospitalization, such benefits to be available to the wife and children of the employe.

Is this the entering wedge leading to a complete compulsory sickness insurance program to be organized and maintained by the government?

In view of HR-7534, it is interesting to note that the

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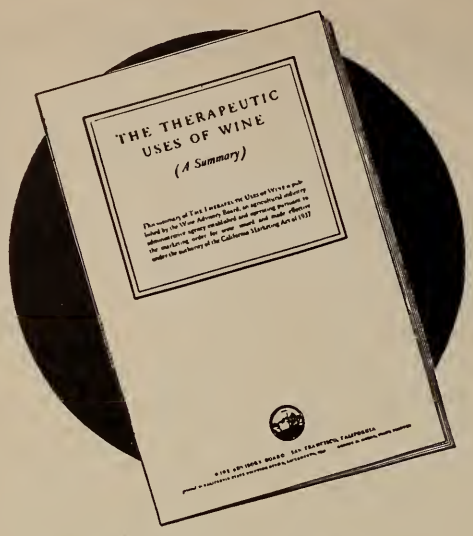


*Published by the Wine Advisory Board*

# THE THERAPEUTIC USES OF WINE

*(mailed free upon request)*

There has developed an interest within the medical profession that the true physiologic and therapeutic uses and deficiencies (and also the food values) of wine be authoritatively reviewed. Such a review has been prepared in monograph form by qualified and competent medical authorities and constitutes a summary of the pertinent scientific literature of present-day medicine.

The contents include sections on wine as a food, and the actions of wine on the gastro-intestinal system, the cardio-vascular system, the genito-urinary system, the nervous system and the muscles, and the respiratory system. The uses of wine in diabetes mellitus, in acute infectious diseases and in treatment of the aged and convalescent are also discussed. The value of wine as a vehicle for medication is dealt with, and an important section on the contraindications to the use of wine is included. An extensive bibliography is presented for those who may wish to pursue the subject further.

This review results from a study supported by the Wine Advisory Board, an agricultural industry administrative agency established under the California Marketing Act, and has been sponsored by the Society of Medical Friends of Wine.

Members of the medical profession are invited to write for this monograph. Requests should be made to the Wine Advisory Board, 85 Second Street, San Francisco.

1942 MSMS House of Delegates adopted the following recommendation offered by The Council:

"That aggressive action, based on a knowledge of all phases of government intrusion in the practice of medicine, be instituted by county medical societies and by individual members to the end that, by eternal vigilance, the proponents of State medical control shall not be successful in their *wartime* attempts to socialize the practice of medicine."

An analysis of HR-7534 entitled "The Social Security Act amendments of 1942" is obtainable from the Bureau of Legal Medicine and Legislation, AMA, 535 No. Dearborn Street, Chicago.

* * *

## TRAINING PROGRAM FOR PHYSICIANS EXPECTING TO SERVE IN INDUSTRY

The need for qualified medical men in industry is becoming more and more acute. Many full-time industrial physicians have enlisted in the armed forces. Replacements are urgently needed and, no doubt, the present emergency will be sufficient to induce many physicians in the older age groups to seek the opportunity of serving in industrial medical departments. It should hold particular appeal for those who are interested in administration, toxicology and preventive medicine.

Industrial medicine has been established as a definite specialty and is a service that is now demanded by both management and labor. Industrial practice today, therefore, presents opportunity for advancement, not merely for the duration, but for the future as well.

Many of those interested will be able practitioners, but before entering into an industrial practice, it is advisable that these physicians received a short period of training and experience in this special field. Such training will enable the physician to adapt himself readily to the preventive phases of industrial medical work and thus coördinate the entire plant medical program more effectively.

To facilitate such a training program in Michigan, plans have been developed through the coöperation of the following agencies: Procurement and Assignment Service; Subcommittee on Industrial Health & Medicine, Social Security Agency; Council on Industrial Health, American Medical Association; Committee on Industrial Health, Michigan State Medical Society; and the Bureau of Industrial Hygiene, Michigan Department of Health.

The training period will be short. A practical course of three weeks' duration has been devised. *The first week will be confined to didactic work covering the preventive aspects of industrial medicine* such as the various occupational hazards and methods of control. *The second week will be devoted to field work* including visits to industrial plants investigating actual hazards and destermining the extent of exposure. During *the third week physicians will be assigned to full-time medical departments in various industries to observe the actual work of those departments.*

This course will be given and supervised by the staff of the Bureau of Industrial Hygiene, Michigan Department of Health, and will be held in Lansing. No charge will be made for any of the work covered

during the three-week period. It is expected, however, that those enrolling will defray their own living expenses.

All interested in taking this work should notify the MSMS Industrial Health Committee immediately so that the course may be initiated without delay.

* * *

### SUCCESSFUL COUNTY SECRETARIES' CONFERENCE

Thirty-three county society secretaries were among the approximately one hundred persons who attended the County Secretaries' Conference held in Grand Rapids on the occasion of the 77th Annual Meeting of the Michigan State Medical Society.

Military uniforms were prominent at this meeting, at which Harold S. Diehl, M.D. of Minneapolis, a member of the Board of Procurement and Assignment Service, Washington, D. C., spoke on "The Physician's Responsibility and the War." D. C. Bloemendaal, M.D., of Zeeland, Chairman of the Secretaries, presided. *County Secretaries* present included:

E. S. Parmenter, M.D., Alpena; R. C. Conyyeare, M.D., Benton Harbor; J. E. Bailey, M.D., Bronson; A. R. Dickson, M.D., Battle Creek; T. Y. Ho, M.D., St. Johns; L. G. Sevener, M.D., Charlotte; John S. Wyman, M.D., and Sara Burgess, Flint; Ben B. Bushong, M.D., Traverse City; John A. MacNeal, M.D., Hillsdale; R. J. Himmelberger, M.D., Lansing; R. R. Gettel, M.D., Kinde; John J. McCann, M.D., Ionia; Frank Doran, M.D., Grand Rapids; Ray M. Duffy, M.D., Pinckney; Sidney Franklin, M.D., Newberry; D. Bruce Wiley, M.D., Utica; Chas. A. Paustis, M.D., Ludington; John A. White, M.D., Big Rapids; C. G. Clippert, M.D., Grayling; Wm. S. Jones, M.D., Menominee; Harold H. Gay, M.D., Midland; W. H. Barnum, M.D., Fremont; D. C. Bloemendaal, M.D., Zeeland; Richard S. Ryan, M.D., Saginaw; I. W. Greene, M.D., Owosso; J. H. Burley, M.D., Port Huron; R. J. Fortner, M.D., Three Rivers; D. B. Ruskin, M.D., Caro; A. W. Marcovich, M.D., Paw Paw; R. K. Ratliff, M.D., Ann Arbor; Benton A. Holm, M.D., Cadillac, and J. A. Bechtel, Detroit.

Councilors and Officers of the MSMS present were: Colonel Henry R. Carstens, M.C., Camp McCoy, Wis.; C. R. Keyport, M.D., Grayling; A. S. Brunk, M.D., Detroit; V. M. Moore, M.D., Grand Rapids,; E. F. Sladek, M.D., Traverse City; P. L. Ledwidge, M.D., Detroit; C. E. Umphrey, M.D., Detroit; Wilfrid Haughey, M.D., Battle Creek; R. J. Hubbell, M.D., Kalamazoo; R. S. Morrish, M.D., Flint; W. E. Barstow, M.D., St. Louis; A. H. Miller, M.D., Gladstone; W. H. Huron, M.D., Iron Mountain; L. J. Johnson, M.D., Ann Arbor; L. Fernald Foster, M.D., Bay City; Wm. J. Burns, Lansing.

*Guests* included: Essayist Harold S. Diehl, M.D., Minneapolis; Colonel Geo. F. Lull, M.C., Washington, D. C.; Colonel N. T. Kirk, M.C., Battle Creek; Colonel C. D. Oatman, M.C., Fort Custer; Colonel R. F. Olmsted, M.C., Chicago; Lt. Colonel R. H. Kennedy, M.C., Battle Creek; Lt. Colonel W. B. Martin, M.C., Battle Creek; Lt. Colonel Harold A. Furlong, M.C., Lansing; Major C. I. Owen, M.C., Detroit; P. R. Urmston, M.D., Bay City; W. H. Alexander, M.D., Iron Mountain; W. D. Barrett, M.D., Detroit; C. F. Brunk, M.D., Detroit; Claud Behn, M.D., Detroit; William Bromme, M.D., Detroit; M. S. Chambers, M.D., Flint; Gerald DeMaagd, M.D., Rockford; Henry A. Dunlap, M.D., Detroit; Joseph H. Failing, M.D., Ann Arbor; Captain R. G. Finnie, M.C., Hastings; Wm. S. Gonne, M.D., Detroit; Lieut. T. E. Hoffman, USNR, Chicago; V. S. Laurin, M.D., Muskegon; L. G. Christian, M.D., Lansing; S. C. Mason, M.D., Menominee; O. W. E. Mitchell, M.D., Flint; H. R. Moore, M.D., Newaygo; Esli T. Morden, M.D., Adrian; Fred N. Morford, M.D., Muskegon; Constantine Oden, M.D., Muskegon; M. H. Pike, M.D., Midland; Wm. F. Reus, M.D., Jamestown; Richard Sears, M.D., Muskegon; E. W. Schnoor, M.D., Grand Rapids; D. R. Smith, M.D., Iron Mountain; Ralph Ten Have, M.D., Grand Haven; Major Edwin Terwilliger, M.C., Fort Custer; A. C. Tompsett, M.D., Hesperia; J. D. Vyn, M.D., Grand Rapids; John J. Walch, M.D., Escanaba; Lieut. Don R. Mathieson, USNR, Betheseda, Md.; Carleton Dean, M.D., Lansing; J. D. Laux, Detroit; H. R. Lipson, Detroit; Mrs. O. W. E. Mitchell and Winifred M. Wyman, Flint.

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The new definition for *morale,* by Australian soldiers in New Guinea, is "what makes your legs do what your head reckons impossible."




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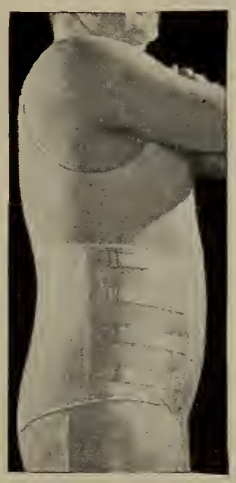

Every Spencer is *guaranteed* never to lose its shape. (Ordinary supports soon stretch out of shape and become useless before worn out.)

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# IN MEMORIAM

**Leopold Adler** of Detroit was born in the year 1881 in Hosszurev, Hungary. He attended the University of Budapest and received his Medical degree in 1912 from the University of Kolozsvar. In 1915 he was appointed county physician by the government and was instrumental in exterminating an epidemic of cholera in that region. In 1919 he left for Vienna and Berlin for postgraduate work and then came to America. The last years of his life he devoted to the study of x-ray, after postgraduate work in this field at Cook County Hospital, Chicago. He was on the staff of Woman's Hospital, Detroit. Dr. Adler died August 17, 1942.

**John W. Dickinson** of Oscoda was born April 10, 1873, at Zumbrota, Minnesota, and was graduated from St. Louis Medical School in 1895. After practicing at Boone, and Des Moines, Iowa, he came to Oscoda in 1912. During recent years Dr. Dickinson had made a special study of arthritis and neuritis, and had devoted much of his practice to these conditions. He died September 11, 1942.

**Carl G. Fahndrich** of Battle Creek was born September 22, 1894, in Cedar, Minnesota, and was graduated from the University of Maryland in 1920. He began his practice in the West Virginia coal fields and in the copper country at Virginia, Montana. During the First World War he served in the navy, being stationed at the 3rd Naval District Headquarters in Baltimore. He became medical director of the Calhoun County Hospital, November 1, 1925. Dr. Fahndrich held nation-wide fame as a diagnostician. He was a fellow of the American Academy of Tuberculosis Physicians, the American College of Chest Physicians, and the Calhoun County Tuberculosis Association (member of the executive board). In addition to being a physician he was a licensed pharmacist. Dr. Fahndrich died in Hines Hospital, Chicago, Illinois, May 31, 1942.

**David J. Levy** of Detroit, Michigan, was born February 8, 1881, in Kalamazoo and was graduated from the University of Michigan in 1906. While in Ann Arbor he was a scholar in the Rockefeller Institute of Medical Research and was an assistant in bacteriology at the University's Hygienic Laboratory. Dr. Levy was an Licentiate of the American Board of Pediatrics; charter member of the MSMS Iodized Salt Commission and an extramural lecturer in postgraduate courses at the University of Michigan. He was formerly the head of the department for pediatrics of Herman Keifer and Grace Hospitals; he was chief of staff of Woman's Hospital and an ex officio life member of the Woman's Hospital Board of Directors; consultant for pediatrics for the Children's Hospital; physician in charge of



*Say you saw it in the Journal of the Michigan State Medical Society*

pediatrics for the divisions of internal medicine department of obstetrics and gynecology at Harper Hospital and former chairman of the executive committee of the Jewish Child Placement Bureau. Dr. Levy presented an address at the MSMS Annual Meeting in Grand Rapids, Michigan, in September, 1942. He died October 14, 1942.

**William M. Tappan** of Holland was born October 6, 1888 in White Plains, Georgia, and was graduated from the University of Michigan in 1916. He interned and was a resident physician at Augusta University Hospital for one year until he entered military service in World War I. He was commissioned a first lieutenant in the medical corps, and served six months at Camp Dodge and Camp Custer. For the past six years Dr. Tappan was Health Officer of Holland, Michigan. He was a past commander of the local American Legion post and served two consecutive years as president of the Ottawa County Medical Society. He died September 13, 1942.

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### INDUSTRIAL HEALTH

The recent reformation which has taken place in the health and life of the industrial worker in Britain is one of the most impressive and remarkable chapters in the progress of preventive medicine. It records a development from disorder, neglect and confusion to regularity and discipline, and from arbitrary mismanagement to scientific planning. It has become physiological, social and personal in objective. This is of national importance, for it affects five or six million men and women workers in the factories, and twenty million workers outside them. It sets a standard for all employment, and crystallizes British conceptions and traditions. It is perhaps the most popular of all public methods of preventive medicine, and has in it the elements of a liberal education. It improves and fortifies the individual health of the workman—his only capital—increasing his dividend, lengthening his life and enlarging his opportunity and personality. It affects the whole man—his habits and character, his domestic life, his family and his home as well as his workplace. It is a great school of citizenship and health education of body, mind and spirit.

*The worker himself, and not his factory environment, is the vital factor.* His fitness, capacity, endurance and will power are the chief requirements in order to prevent that overstrain, fatigue and disharmony which may be the precursor of disease. This is the center of gravity.—Sir George Newman, *Britain Today*, Feb., 1942.

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### AUSTRALIANS CAN PRODUCE OPIUM

Opium poppies can be grown satisfactorily in parts of Australia, the Council for Scientific and Industrial Research reports. This news comes at a time when imports have been cut off from the Far East and other former sources. United States officials are keeping a watchful eye on our dwindling stock of opium from which valuable medicinals are obtained.

Analysis of Australian opium indicates that its morphine content is variable but has commercial possibilities. Progress has been reported in extracting morphine directly from the dried whole plant. The present method obtains opium from the poppies by cutting the unripe seed capsules and collecting only the milky juice which exudes.—*Science News Letter*, September 26, 1942.

Aerial View

The Sawyer Sanatorium offers facilities for the treatment of patients suffering from Nervous Diseases, Mental Disorders, Psychoneuroses, including Involutional Psychoses; Arterio-Sclerotic, Senile and Adolescent Mental Disorders; Paralyses; Cardiac, Cardio-renal and Hypertensive Nervous Conditions; and the various manifestations associated with them.

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# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

WAR AND THE DOCTOR. Essays on the immediate treatment of war wounds, edited by J. M. MacIntosh, M.D., Chief Medical Officer of the Department of Health for Scotland. William Wood and Company, Baltimore. $2.00.

This book is based on a series of lectures delivered at the request of the Edinborough branch of the British Medical Association, and arranged for an intensive course for Doctors in modern war surgery. Knowledge of war surgery was slowly developed in 1914-18, and somewhat modernized in Spain and China, but new techniques are developing, conditions are different, patients are the whole population. The first-aid posts are the streets. Casualty hospitals, base hospitals, special hospitals and convalescent homes are described. The first chapter is on fear neuroses, including the misunderstood "shell shock," hysteria, and the treatment of neuroses. There are chapters on shock and hemorrhage, war injuries of the face and jaw, chest injuries, the immediate treatment of air raid injuries, tetanus and gas gangrene and their prevention. Amputations should not be done as a primary measure, except at the base hospital for the area. A synopsis of first aid lectures is given, also a chapter on emergency surgery in the field. A handy little volume, full of important information.

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FIRST AID TO THE SICK AND INJURED. An advanced ambulance handbook edited by Norman Hammer, M.R.C.S., Major late R.A.M.C., T.A. County surgeon St. John's ambulance brigade. Eighteenth edition, 215th thousand. The Williams and Wilkins Company, Baltimore, 1941. $2.00.

This handbook is of pocket size and almost entirely rewritten. The first section is general, anatomy, physiology. The second part is first aid, well and profusely illustrated. Bandaging and dressings cover thirty-seven pages, and is made very understandable. Transport of the sick and injured is most important and takes a thirty-four page chapter. War gasses were important during the last war, and may be in this one. They get thirty-nine pages. The book is well printed on thin Bond paper.

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THE ESSENTIALS OF EMERGENCY THEATMENT. Published by The Connecticut State Medical Journal. Herbert Throm, Editor, New Haven, 1942, paper $1.00; cloth, $2.00.

In these times of emergency, with many of our doctors, and especially our industrial surgeons gone to war, and the ever-present possibility of invasion, sabotage or other disaster, many have suggested the standardization of emergency treatment. *Connecticut State Medical Journal* has acted instead of talked. It has presented a valuable volume of one hundred-forty-four pages, well printed and beautifully executed. Nineteen surgeons, orthopedists, psychiatrists, ophthalmologists, laryngologists, neurosurgeons, have collaborated and given us the very best thought and practice in the many conditions that may demand care. References are given, and sufficient detail in the discussion so that the attendant may be guided in giving the best care of which medical science is capable. This little book should be in every Hospital's library, and easily



*Say you saw it in the Journal of the Michigan State Medical Society*

accessible to the surgeon who may be called upon to render services in strange places or circumstances. Conditions are discussed for which it might be difficult to find help: "Shock," crush, blast, wound healing, blood and blood substitutes, burns, soft tissue wounds, abdominal injuries, head, spinal cord, face, are quite fully discussed and the reasons given for treatment advocated.

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STEADMAN'S PRACTICAL MEDICAL DICTIONARY: of words used in medicine, with their derivation and pronunciation, including dental, veterinary, chemical, botanical, electrical, life insurance and other special terms; anatomical tables of titles in general use, the terms sanctioned by the Basle Anatomical Conference, the new British anatomical nomenclature, etc. By Stanley Thomas Garber, B.S., M.D., University of Cincinnati, College of Medicine. Fifteenth Revised Edition. 1257 pages. Baltimore: A William Wood Book. The Williams and Wilkins Company, 1942. Price $7.50.

A good medical dictionary is almost indispensable in a doctor's office. Steadman's has always been a good medical dictionary. This one is more. It contains so much new material it is almost a dictionary of all scientific professions. It is not a reprint, but an entirely new book, completely reset, with all corrections, changes, eliminations and additions that its new format requires. The definitions are in detail, clear and well illustrated. Pronunciation is stressed, and new Basle Anatomical nomenclature, and new British nomenclature indicated where it differs from the old form. The dictionary is thumb indexed, and contains an appendix of weights and measures, symbols, new nomenclature. A most useful book.

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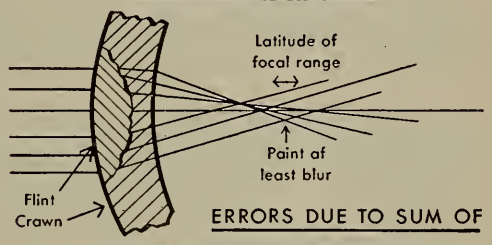


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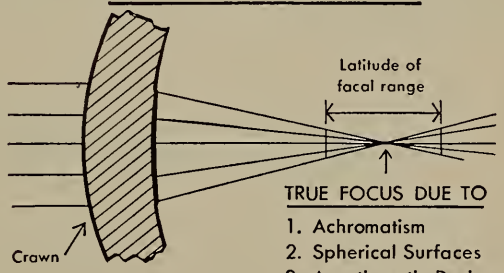


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CLINICAL ANESTHESIA. A Manual of Clinical Anesthesiology. By John S. Lundy, B.A., M.D., Head of Section on Anesthesia, Mayo Clinic; Professor of Anesthesia, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota; Diplomate and Member of the American Board of Anesthesiology, Inc.; Member of the Subcommittee on Anesthesia, National Research Council. With 266 illustrations. Philadelphia and London: W. B. Saunders Company, 1942.

Anesthesia which opened the door to modern surgery is of many varieties, degrees and uses. A text on this subject to which anesthetists and others can refer must be authoritative, and complete. None is better qualified to present such a book than Professor Lundy of Mayo's Clinic. His opportunities for observations have been unexcelled and his yen for the work insatiable.

This book, 771 pages, is complete. The first chapter is on choice of anesthetic agents and methods in relation to operations in ten different regions, with consideration of physiologic and other effects upon various organs or systems. This is substantiated by numerous tables.

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the need for accuracy, danger of mistakes in solutions, labels, care of instruments and materials. This chapter covers over eighty pages and contains many tables and illustrations.

Over 300 pages are devoted to general anesthesia in all its variations, and applications including consideration of anesthetic agents to avoid inflammable or explosive mixtures. Chloroform, tribromethyl alcohol, and barbiturates meet this condition.

A chapter is devoted to resuscitation. Theories and actions of anesthetics, the chemical base, toxicity, are all considered, and finally a chronology from 4,000 B.C. the old testament instance of removal of a rib, through Nippur the Babylonian dentist, and Æsculapius down to the present time, with twelve pages of entries.

Dr. Lundy has produced a profoundly interesting and valuable book.

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TREATMENT IN GENERAL PRACTICE. By Harry Beckman, M.D., Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wisconsin. Fourth Edition, thoroughly revised. 1015 pages. Philadelphia and London: W. B. Saunders Company, 1942. Price $10.00.

This is a remarkably all-inclusive book, not too heavy to hold, well indexed and gives the latest ideas of treatment of most every known condition. When applicable the author says "I know of no effective treatment" or "There is as yet nothing distinctive to describe." All the accepted therapeutic methods or drugs are given with sufficient detail to act as a guide. The diagnosis and description of the disease is enlightening

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and instructive, and contains many references, such as Hemophilia. In the Babylonian Talmud it is stated that circumcision is to be discontinued in a family in which it has caused two successive fatalities." the earliest reference to Hemophilia. Such historical notes are freely given. There are references for treatment described, giving the author and place of publication. The bibliography and index occupy 130 pages, indicating the thoroughness of the author. We are pleased with the book.

---

THE CARE OF THE AGED (GERIATRICS): By Malford W. Thewlis, M.D., Attending Specialist General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, R. I.; Special Consultant, Rhode Island Department of Public Health. Fourth Edition, thoroughly revised, with 50 illustrations. 590 pages. St. Louis: The C. V. Mosby Company, 1942.

Geriatrics has been discussed and recognized since Hippocrates first listed the diseases to which old persons are subject. It is a separate branch of medicine, requiring special understanding. This book contains thirty-eight chapters upon such subjects as: history, neglect, value of old age, hygiene, prevention of premature senility, prolongation of life, work, hobbies, medico-legal relations, anatomical changes, diagnostic errors, nursing the aged patient, allergy, alcoholism, cardiovascular disease, diseases of the various systems of the body, pathological conditions, cancer, surgery of the aged. Each chapter is followed by a list of references. The type is large, easily read; the style is good, clear and comprehensive, making a good word picture of the descriptions. This is a useful book, calling attention to many of the things apt to be overlooked when dealing with this increasing type of practice. Geriatrics has become an art as well as a science and is so presented.

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At the Induction Station at Jefferson Barracks, for the last several months at least, straight psychiatric rejections have led the list by over twice the figure of the next cause of rejection. This does not include educational, administrative and neurologic rejections, to which the psychiatrist contributes, nor any of the men who have had psychiatric disabilities in addition to disqualifying physical ones. It would seem that something had been learned from the first World War when psychiatric rejections were fourth on the list. Some rather shop-worn figures are an estimated cost of $35,000 for every neuropsychiatric casualty of the last war amounting to about one billion dollars to date; two out of every five veterans are receiving pensions for such conditions; 60 per cent of the patients hospitalized in Veterans Administration Facilities have been considered neuropsychiatric casualties.—SAMUEL R. WARSON, *Jour. Mo. S.M.A.*, Oct., 1942.


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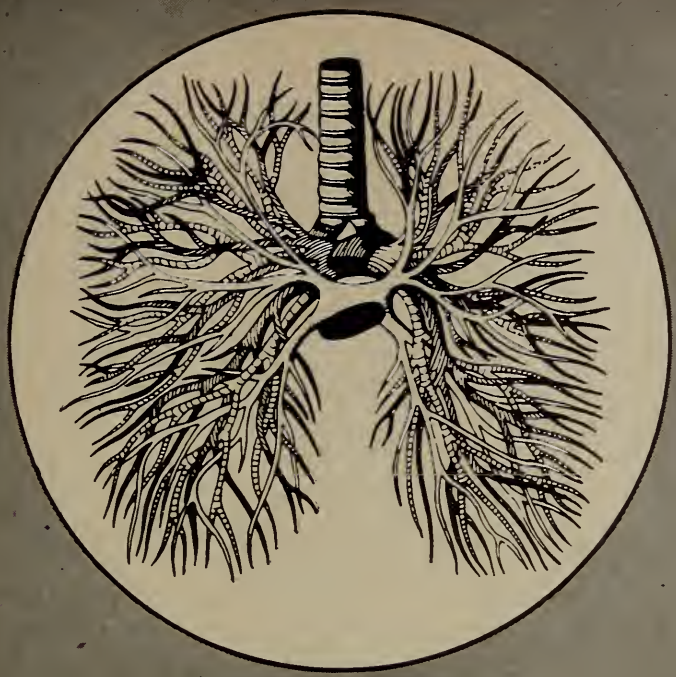

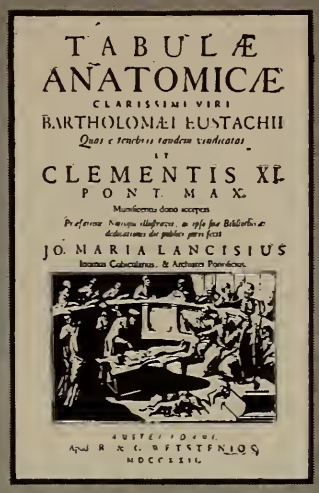


● From the rare volume, "Tabulae Anatomicae" by Bartholomaei Eustachii, comes this interesting illustration of the bronchi, arteries and veins of the lungs. Published in 1722.


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## State Secretaries and Editors Confer On War and Postwar Work

For many years the American Medical Association has held a conference of state Secretaries and Editors. The Secretary, Editor, Chairman of the Council and Executive Secretary attended the meeting held in Chicago November 20 and 21, 1942. Of all such conferences, this was the most important and impressive. On the program were Roger I. Lee, Chairman of the Board of Trustees, American Medical Association; Col. Fred W. Rankin, President; James E. Paullin, President-elect, and member of Procurement and Assignment; and Frank H. Lahey, ex-president and Chairman of Procurement and Assignment; Admiral Ross T. MacIntyre, Surgeon General of the Navy; General Hillman, Assistant Surgeon General of the Army; Thomas E. Parran, Surgeon General of the U. S. Public Health Service; Col. L. G. Roundtree, Chief of Medical Service, Selective Service System; General David N. B. Grant, Chief Surgeon, Army Air Service; Walter P. Donaldson, Chairman of the War Participation Committee of the American Medical Association; and various secretaries, chairmen, editors and Medical Directors of Medical Service plans.

Most of the conference was upon the war effort and preparation for the postwar period. It is impossible to review all that was presented. Col. Rankin reported the cancellation of the scientific meeting of the American Medical Association, probably for the duration, because of transportation, so many men in services, etc. The House of Delegates will meet to carry on the program and administrative affairs that must continue. It is suggested that several smaller sectional meetings be held and possibly joint State Society meetings.

Admiral MacIntyre stressed that the production of doctors for the armed forces and the postwar period in numbers equal or greater than educated now is an absolute necessity. Most of the Navy personnel is made up of Reserve officers who are operating satisfactorily forty-one hospitals of 300 to 5,000 beds with from 175 to 3,500 patients. Because of the improved methods of warfare, and different fields of battle the mortality will be greater than in other wars. Of the first 1,000 casualties the mortality was less than 1 per cent. Those wounded in the Pacific Islands are treated for shock, given blood plasma, morphine and the Sulpha drugs, then transported by plane to Base and General Hospitals in safe places the day of injury. Blood plasma is available, also human albumen. Many new problems of treatment and prevention of injury have developed, and many have been solved. When some destroyer is sunk and its men are in the water, at a certain depth the bombs on board go off and the underwater blast wrecks havoc to the men in the water. Medical officers who have a special training are used in their specialty and improved in it in an effort to return them to civil practice after the war much better men than they were when they entered the service.

### Michigan Enlistment Is 26% Over Quota

Dr. Lahey talked of Procurement and Assignment. Michigan has produced 126 per cent of her quota for the armed forces, the third large state to do so. Fourteen states have not reached their quotas. New quotas are now being set up for the additional thousand men a month that will be needed next year. Any overage in this year's quotas will be deducted from the 1943 requirements. There is no longer a surplus of doctors, and the proportion is now about one to 1,500 people. There are areas desperately needing more but Procurement and Assignment has no legal way to dislocate doctors from their present locality and send them to these areas, but that must be done. Already 218 doctors have been sent into 150 locations in 29 states.

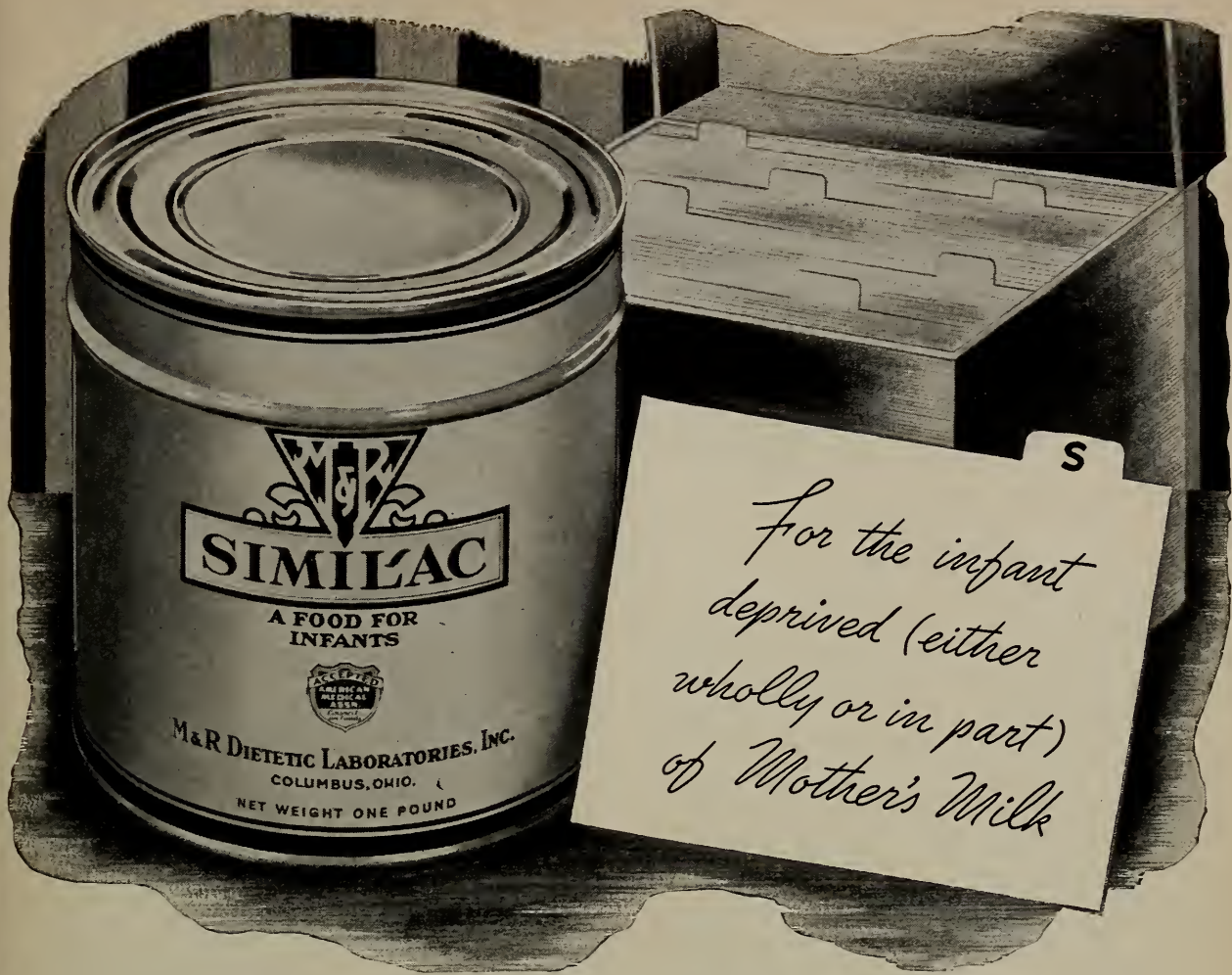
General Hillman reported that the army now has five thousand more doctors than it did in 1917-19, and must add 1,000 each month. These increased needs demand that the lists of essential men throughout the country be revised. The Surgeon General realizes that physicians over 45 are more needed at home and the younger men in the army. All but 16 of the sponsored General Hospital units have been activated. No more Sponsored Hospitals will be formed, but more will be formed in the army, the same as was done in the other war. For the future, students now actually matriculated are being deferred and their course stepped up to three years. Where will the new students come from? There must be a continuing supply, and they must have two years of premedical training. Who will select them? And how defer them? It is suggested that the teen age boys be taken into the services, then certain ones be selected for premedical studies and sent to school at government expense and receive their medical education. This of course would bring immediate "state medicine."

General Parran said that 5,700,000 people have migrated into 410 centers, dislocating the proportion of physicians to people because the doctors have been reluctant to go into the new mushroom industrial centers. Requests have come to U.S.P.H.S. to supply doctors and some have been sent. They are in uniform and do not collect fees, or in certain instances they collect them and use the money for the benefit of the health of the community. (This is another step towards state medicine, which The Council in Michigan has tried to discourage.) As yet there is no evidence of the increase of venereal disease, but Britain had 10 per cent increase the first year of the war, 20 per cent the second and 40 per cent the third.

### Twice as Many Medical Graduates in Three Years

Col. Roundtree spoke for General Hershey. The Army will be 7,500,000 in 1943, the Navy is now 1,000,000. There will be 62,000,000 people in War work. Medicine must serve all. The demands will be first for the military, second public health and industrial medicine.

*(Continued on Page 1022)*

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*It gives uniformly good results*

• A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil, and cod liver oil concentrate.

*One* level tablespoonful of the Similac powder added to *two* ounces of water makes 2 fluid ounces of Similac. The caloric value of the mixture is approximately 20 calories per fluid ounce.

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*(Continued from Page 1020)*

third research which must go on, and fourth civilian practice. The medical profession has more to offer than any other. There are about 155,000 effectives of whom 55,000 will be in military service. To meet the needs of selective service, medical men have to become itinerant, but the question of transportation is immediately involved. The army and navy are satisfied with the results. The Medical profession has met all its obligations, including the selective service examinations. Medical students are being deferred, and the course telescoped. This year about 5,300 were graduated, next year it will be 9,400, then 10,250. The postwar period will see a world-wide shortage of doctors because of the use of the young men in the armed forces in every country and failure of new matriculants. Refugees and women will have to fill the want. Substandard schools are now being used and will help to produce the needed physicians. Dr. Roundtree believes part of the premedic group can be supplied by the 17-year-old boys starting college, then when their draft time comes they can claim six months to complete a semester, and make themselves eligible for deferment as matriculated medical students by that time. (That of course lowers our standards of requiring three or four years collegiate training.) It was also suggested that our State Boards of Registration in Medicine let down the bars and give temporary licenses to refugee doctors and graduates of sub-standard schools. In fact a resolution was introduced to place the conference on record as favoring "temporary licenses." After a short but completely unfavorable discussion the resolution was tabled.

### "Round Pegs" in "Round Holes"

General Grant of the Air Force told us they have many uses for specialists, and that in a recent survey it was found that less than 1 per cent of Air Force doctors are being used in some other branch of work than that for which they were trained. The air medical service selects good doctors and will return them to civil life much better. Tropical disease in this global war is giving us something more than textbook filler put in to make the book heavier. We are seeing the cases and the doctor must understand them. The air service is changing the concept of hospital services to patients. Lectures and instructions are being given as well as exercises for health building. Radio is a favorite study, current topics, mathematics, everything they wish to study is provided for the in patients so that they will come out ready for something, rather than to begin a convalescence. We cannot afford to lose men, any of them, and the salvage problem is to find something they can do. All hospitals can do this.

Walter F. Donaldson, Chairman of the War Participation Committee, gave a splendid talk offering suggestions for making the work of the doctors more effective, by careful planning, budgeting of time, working part time in industrial areas, etc. He cautioned that we must do all we can, but in accepting new conditions and making new efforts we should always remember that there are certain fundamental principles developed through the ages, and found to be sound that must not be given up, no matter what the pressure and argument.

There were several other speakers, and other topics considered, including a conference on medical service plans. Those of Massachusetts, Michigan, California, Pennsylvania and New Jersey received particular attention. The Michigan plan is still the most altruistic and liberal in the scope of coverage to patients and payments to the doctors. Most of the plans exclude many things, and the level of payments to the doctors is lower.

### Apprehension of "Reformers"

The whole meeting was one of intense interest. There was a feeling of apprehension expressed by the speakers as to what the postwar world would be. There is a great social revolution going on that is as great as the one when we changed to an industrial world and the doctor became an individual instead of the henchman of his overlord or retainer. The doctors who have gone to the service were pictured as sitting around the campfire and worrying as to what we are doing to preserve something for them when they come back. Many believe they will never return to civil practice because there will be none.

It was expressed numerous times that the Social Security program or the boys with "change" in their minds would use this time of stress to accomplish their purpose. "The social gains that are now being accomplished must not be lost when the war is over" is their cry; we must be just one step ahead of them or we are lost.

Remember the threats made against the independence and individuality of our practice in recent years. Social security still has these plans in brewing, and may bring them to light any time. As the great patriotic surge and war effort takes our attention, the "reformers" are ever alert.

## Procurement and Assignment a Success

Ninety-five per cent of the 1942 procurement objective of medical officers for the armed forces has already been met, according to the Directing Board of the Procurement and Assignment Service. Toward this total a number of states have supplied more than their share of physicians (Michigan, for example, ran 126 per cent), and only a few states are lagging behind in their quotas. It is from these states that the additional physicians needed during the current year will come.

"The recruitment of such a large number of physicians in a few months is a remarkable achievement and another demonstration of the traditional patriotism and unselfishness of the medical profession. In this achievement, the profession can justifiably take pride", stated the P and A Directing Board.

## Keep Fit During Wartime

*(Invite the following to the attention of your patients)*

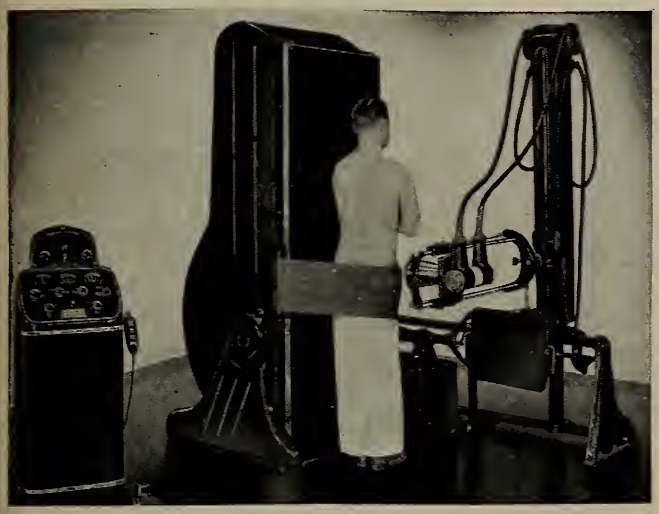
1. Keep up your resistance to the highest point
   (a) by obtaining adequate amounts of sleep and rest;

*(Continued on Page 1024)*

# *Congratulations, Doctor...*

**Since you've installed the Advanced "Series 200", we are producing radiographs that are "tops" in speed, detail, contrast!**

***The Picker-Waite "Series 200" is a complete diagnostic x-ray unit for radiography and fluoroscopy in any position. Speed, precision and ease of operation are inherent features of the "Series 200".***



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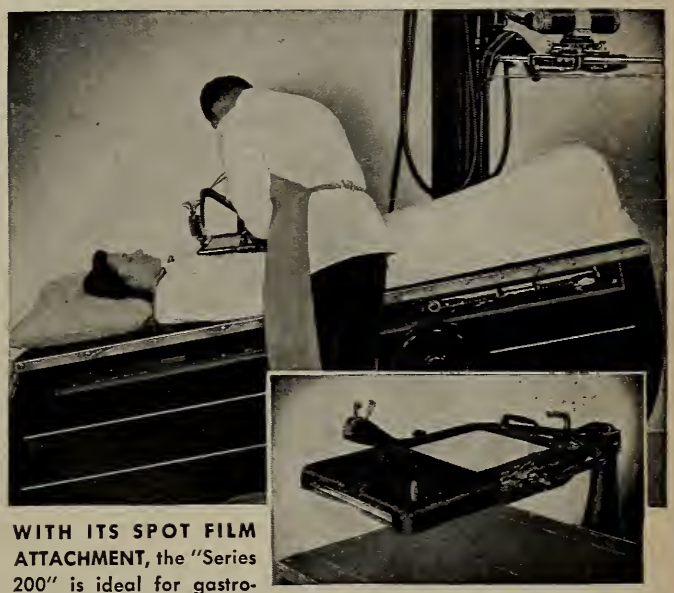
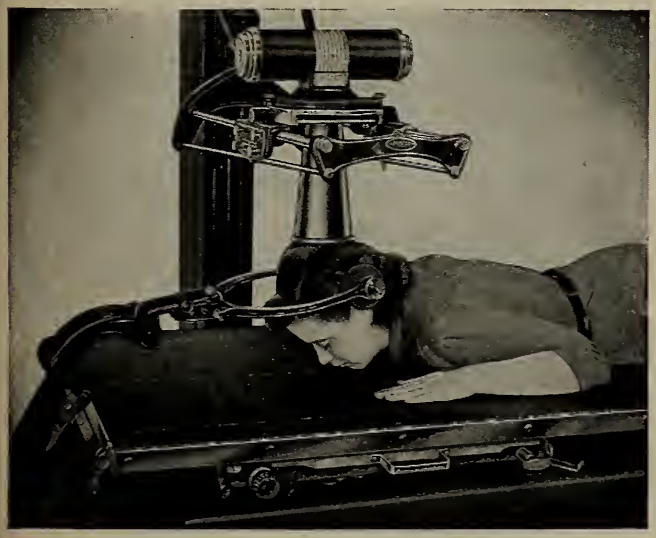
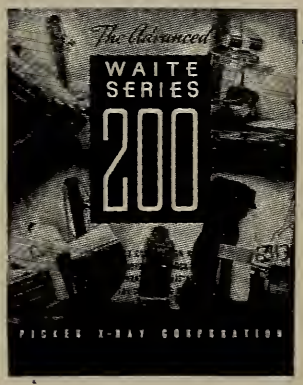
X-Ray exposures of the lateral pelvis or spine in 1½ seconds and 6 foot chest films in 1/20th of a second are routine procedure.



**WITH ITS SPOT FILM ATTACHMENT,** the "Series 200" is ideal for gastro-intestinal examination.



**SINUS AND SKULL WORK** is easily achieved—and with complete comfort to the patient. An adjustable head clamp (optional) facilitates positioning and insures immobilization.

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*(Continued from Page 1022)*

(b) by obtaining sufficient nourishing food;
(c) by avoiding over-work, over-indulgence and over-exercise.

2. With half our Doctors of Medicine serving the armed forces, the other half will be able to give necessary medical care to all civilians if you will follow these simple suggestions:
   (a) Limit night calls to Emergencies only;
   (b) Arrange any necessary home visits with the doctor before he leaves in the morning so he may map out a route;
   (c) Go to the doctor's office whenever possible, securing an appointment through the physician's secretary;
   (d) Use hospital facilities, if only for a few days, for serious cases and those needing close observation such as confinements;
   (e) Have yourself and your children immunized against disease;
   (f) If you haven't had a health inventory—a periodic health examination—for over a year, see your Doctor of Medicine as soon as possible.

"An Ounce of Prevention is Worth a Pound of Cure".

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**COUNTY MEDICAL SOCIETY MEETINGS**

*Bay-Arenac-Iosco*—October 14, 1942—Bay City—Regular meeting. October 28, 1942—Bay City—Regular meeting. Nov. 25, 1942—Bay City—Pathological Conference.

*Calhoun*—October 6, 1942—Battle Creek—Speakers: Herman H. Riecker, M.D. Subject: "The Modern Treatment of Cardiac Failure" and Harold K. Shawan, M.D.—subject: "Surgery of the Ambulatory Patient." November 3, 1942—Battle Creek—Speaker: Capt. Arthur Frisch, M.D.

*Dickinson-Iron*—October 5, 1942 at Iron River. Speaker: F. L. Rector—Subject: "Control of Cancer." November 13, 1942 at Iron Mountain—Speaker: Harry Mock of Chicago.

*Genesee*—September 29, 1942—Flint—Nomination of Officers. October 13, 1942—Flint—Combined Business Meeting and Postgraduate Lectures. October 27, 1942—Flint—Combined Business Meeting and Postgraduate lectures.

*Hillsdale*—October 6, 1942—Hillsdale—Speaker: Henry Ransom of Ann Arbor—Subject: "Lesions of the Biliary Tract." November 10, 1942—Hillsdale—Speaker: John R. Mannix "Rural Hospitalization Plans" and G. W. Schelm, M.D., presented a Clinical Pathological Conference.

*Ingham*—October 20, 1942—Lansing—Speaker: Herman H. Riecker of Ann Arbor—Subject: "Hypertension." November 17, 1942—Lansing—Speaker: Bert Beverly, M.D.—Subject: "Psychiatric Effects of the War on Pre-Adolescent and Adolescent Children."

*Ionia-Montcalm*—October 13, 1942—Lake Odessa—Speaker: Major R. L. Eastman—Subject: "The Relative Problems of Military and Civilian Medical Practice."

*Jackson*—October 20, 1942—Jackson—Speaker: C. Fremont Vale, M.D.—Subject: "Surgery of the Stomach." November 17, 1942—Jackson—Regular Meeting.

*Kalamazoo*—October 20, 1942—Kalamazoo—Speaker: H. M. Pollard of Ann Arbor—Subject: "Differential Diagnosis of Gastric Lesions as Observed Through the Gastroscope." November 17, 1942—Kalamazoo—Speaker: Paul C. Bucy, M.D. of Chicago—Subject: "Traumatic Intra-cranial Hemorrhage."

*Muskegon*—October 23, 1942—Muskegon—Speaker: Samuel Soskins, M.D.

*Oakland*—October 7, 1942—Kingsley Inn—Speaker: Carl Bagley, M.D.—Subject: "Low Back Pain." November 4, 1942—Kingsley Inn—Speaker: Wm. S. Reveno, M.D.—Subject: "Disturbances in Carbohydrate Metabolism."

*St. Clair*—October 27, 1942—Hotel Harrington—Speaker: J. Bailey, M.D. of Detroit. November 10, 1942—Hotel Harrington—Speaker: Clark D. Brooks, M.D., Subject: "Emergency Abdominal Surgery."

*Shiawasee*—Nov. 19, 1942—Election of Officers.

*Tuscola*—October, 1942—Caro, Michigan—Joint Meeting of Tuscola County Medical Society and Auxiliary honoring past presidents of the Society.

*Washtenaw*—October 8, 1942 at Michigan Union—Speakers: Frederick A. Coller, M.D. Subject: Surgery of the Ambulatory Patient," and Paul S. Barker, M.D. Subject: "The Modern Treatment of Cardiac Failure." Panel Discussion on "The Acute Abdomen" by F. A. Coller, M.D., Norman F. Miller, M.D., and Charles F. McKhann, M.D. November 12, 1942 at the Michigan Union—Speakers: Raymond W. Waggoner—Subject: "Psychcosomatic Medicine, and Arthur C. Curtis—Subject: "The Industrial Dermatoses and Fungus Disease of the Skin." A panel discussion followed on "The Accidents and Complications of the Newborn Period and Post Partum Care" by Charles F. McKhann, M.D., and Norman F. Miller, M.D.

*Wayne*—October 12, 1942—Art Institute—Speaker: Tom D. Spies, M.D.—Subject: "Recent Advances in Vitamin Research." December 14, 1942—Speaker: Frederick F. Tisdall, M.D.—Subject: "Nutrition in Every Day Practice."

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# REPORTS FROM ENGLAND
# CITE THREE DISABILITIES AMONG FATIGUED WAR-WORKERS

*Spencer Sacroiliac Support for Men*

## 1. ENTEROPTOSIS WITH SYMPTOMS
## 2. SACROILIAC SPRAIN (Other Back Injuries)
## 3. HERNIA

This probably explains why we are receiving here a greatly increased number of prescriptions for supports for these same conditions.

When you augment your treatment of *Enteroptosis with Symptoms* by a Spencer, the support you prescribe is individually designed for the patient to help return abdominal organs to optimal functioning position—and to improve posture. Frequently an immediate improvement in general health and mental outlook is noted.

For inoperable *Hernia,* a Spencer is especially created for the patient to gently, but firmly, support the hernia, while guiding the body to better posture. Spencer Hernia Supports will not yield under strain or move out of place. They are comfortable, lightweight, flexible, easily laundered, durable, with no hard rubber or metal parts.

*Spencer Abdominal Supporting Belt for Women*

For *Sacroiliac Sprain,* a special posture-corrective support is designed for the patient, in which is incorporated a simple band which encircles the pelvic girdle, immobilizing the affected joints. Usually prompt relief is experienced.

Every Spencer Support is individually designed for the patient, of *non-elastic* material. Hence, the support it provides is *constant,* and the Spencer can be—and IS—guaranteed NEVER to lose its shape. Spencer Supports have never been made to *stretch to fit;* they have always been *designed to fit.* Why prescribe a support that soon loses its shape and becomes useless before worn out? Spencers are light, flexible, durable, easily laundered.

For service, look in telephone book under "Spencer Corsetiere" or write direct to us.

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**Abdominal, Back and Breast Supports**

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# Michigan Medical Service

## Annual Meeting of Members of Corporation
## Tuesday, September 22, 1942

1. *Call to Order.*—The annual meeting of the members of the Corporation of Michigan Medical Service was called to order by President R. L. Novy, M.D., at 5:30 p.m., Tuesday, September 22, 1942, in the Grand Ballroom, Pantlind Hotel, Grand Rapids, Michigan.

Roll call was taken by Isadore Levin, secretary of the meeting. One hundred eight members were present in person and thirteen persons were present by proxies duly filed.

2. *Reports of Officers.*—(a) Report of the President (see Exhibit A); (b) Report of the Executive Vice President (see Exhibit B).

Motion Drs. Buesser-Dutchess that the reports of the officers be accepted. Carried unanimously.

3. *Election of Directors.*—

(a) In accordance with the provisions of the By-Laws of Michigan Medical Service, the Members were advised that, by authority of the Board of Directors, the number of directors to be elected at this meeting is nine—all to be elected for a term of three years.

The following names were submitted by the Board of Directors:

*Doctors of Medicine:* O. O. Beck; O. D. Stryker; R. L. Novy; Ralph Pino; Henry A. Luce; P. R. Urmston; E. C. Baumgarten; W. B. Harm; G. L. McClellan; A. E. Catherwood; Stanley W. Insley; W. H. Honor; C. E. Boys; W. H. Huron—six to be elected.

(b) Dr. R. A. C. Wollenberg presented further properly signed nominations as follows: Drs. R. V. Walker; L. J. Morand; Leon Bogart; David Sugar; Louis J. Gariepy; Robert B. Baker; and E. M. Vardon.

(c) The following candidates withdrew their names from the list of nominations: Drs. David Sugar; L. J. Morand; G. L. McClellan; R. V. Walker; W. H. Honor; E. M. Vardon; and Louis J. Gariepy.

(d) Motion Dr. Harm-Several that the nominations be closed. Carried.

(e) As the lay representative, the Board of Directors presented the name of Dora H. Stockman.

Motion Dr. Haughey-Several that the nomination for Director to fill this place be closed and the Secretary be instructed to record the unanimous vote for Mrs. Stockman as a Director for a three-year term. Carried unanimously. The secretary recorded such vote.

(f) As Hospital representatives, the Board of Directors presented the names of Robert Greve; Kate J. Hard; and Ralph Hueston; these names having been presented by the Michigan Hospital Association.

(g) Motion Dr. Morand-Several that the nominations be closed. Carried.

(h) The ballots were distributed, voting completed, and the count by the tellers indicated that the following candidates were elected Directors of Michigan Medical Service for the term of three years each: R. L. Novy, M.D.; Robert H. Baker, M.D.; Leon M. Bogart, M.D.; Stanley W. Insley, M.D.; O. D. Stryker, M.D.; W. B. Harm, M.D.; Robert Greve; and Ralph Hueston.

4. *Resolutions.*—Dr. Breakey of Ingham County presented the following motions:

(a) *Income Limit.*—Motion Drs. Breakey-Christian that the Board of Directors be instructed to issue no certificates to any individual who is a single man with an income of more than $2,000 annually or to any married man with an income of more than $2,500 annually.

In the discussion, it was indicated by several Members that such a limitation would make selling the Service practically an impossibility.

The motion was lost by a rising vote of 32 to 61.

(b) *Separation of M.M.S. and M.H.S.*—Motion Drs. Breakey-Nelson that the Board of Directors be instructed to completely separate the activities of Michigan Medical Service from those of Michigan Hospital Service.

Amendment by Drs. Luce-Breakey that this be done as soon as consistent with sound actuarial procedures.

Mr. Ketchum stated that while he felt there should be a separation because of great saving in expense, it had not been desirable to do so. Mr. Ketchum felt that representatives—direct employes of Michigan Medical Service—could and would, as soon as possible, take over the responsibility of presenting the plan. He did, however, object strongly to any segregation of accounting records, stating that at the present time—with the difficult situation in regard to obtaining adequate personnel and equipment—it would be practically a physical impossibility to do so and would increase the overhead by almost 100 per cent.

Dr. Luce again made it clearly understood that under his amendment this be done *when consistent with sound actuarial procedures.*

The amendment was put and carried.

The motion, incorporating the amendment, was put and carried.

(c) *Board of Review.*—Dr. Breakey pointed out that the difficulty in obtaining hospital beds for emergency cases and acutely ill patients had become a problem. He presented the situation in Ingham County under the welfare plan whereby a committee of doctors elected by the medical society authorizes the rendering of services in offices and approves payments.

Motion Drs. Breakey-Baker that it is the sense of the Membership that the Board of Directors consider the matter of authorizing the appointment by local medical societies of Boards of Review to pass upon questions as to the authenticity and necessity for hospitalization and the payment of bills for services ren-

*(Continued on Page 1028)*

Destruction of barracks at Wheeler Field, T. H., December 7, 1941.
Photo by U. S. Army Signal Corps.

# Lessons from Pearl Harbor

Out of the chaos and confusion—the burns, lacerated wounds and compound fractures—that was Pearl Harbor on that first Sunday of December, 1941—have come many lessons. Not the least among them is the value of the sulfonamides—used topically for the management of the potentially infected traumata.

Field conditions were ideal for the production of Clostridial infections—yet the incidence of gas gangrene was remarkably low and resulted in no deaths. Hospital facilities and surgical skill were hard-pressed and surgical operations were delayed from hours to days. Due in no small measure to the use of the sulfonamides, postoperative mortality was only 3.8 per cent, and most of these fatalities were from shock and hemorrhage.

Topical use of sulfonamides is assuming increasing importance not alone in military practice but in industry and civil life. These compounds should be regarded as an important adjunct to surgery, regardless of whether the surgeon is dealing with grossly contaminated wounds or maintaining asepsis in his operative field. Further studies must, of course, be made to determine the method of application best suited for each type of wound.

The Squibb Laboratories have available many of the sulfonamide compounds. There are several dosage forms under laboratory and clinical investigation and these will be provided as the need arises and results prove favorable.

**E·R·SQUIBB & SONS**

*Manufacturing Chemists to the Medical Profession Since 1858*

*(Continued from Page 1026)*

dered in the doctor's office and take steps to put into operation the intent of this motion and that any such determination shall be subject to review by Michigan Medical Service.

Mr. Ketchum felt that it would be entirely feasible to include procedures customarily done in the physician's office but it would take time to study the situation. He indicated that the machinery for such Boards had been set up originally but the Boards had not functioned due to lack of coöperation.

The motion was put and carried.

6. *Amendments to Articles of Incorporation.*—The Chair then referred to the proposed amendments to the Articles of Incorporation which had been mailed with the notice of the meeting, explaining that the purpose of the amendments was to provide a wider membership—so that the administration of the plan would be in the hands of the doctors.

He suggested that, because of the lateness of the hour, the members might wish to lay the matter on the table.

Motion Dr. Christian-Several that the proposed amendments to the Articles of Incorporation be laid on the table. Carried.

7. *Adjournment.*—The meeting was adjourned at 9:10 P.M.

**Exhibit A**

**REPORT OF PRESIDENT**

As you know, I was elected President on September 3, 1942, after Dr. Carstens' resignation to report for active service. My stay in this house is, as you also know, of one year. This is the first meeting of the Members of the Corporation of Michigan Medical Service that I have ever attended.

In the two preceding years, the Board of Directors met on three occasions each year. The Executive Committee carried on the work in the interim. The immediate change that took place last fall was a demand for more Board meetings so that there be a wider expression of opinion and things could be adjusted. The result has been that instead of three Board meetings, we have had thirteen in this last year. I call your attention to this fact—that there has been a great deal of effort expended to get things to function properly.

**Income Limits**

One of the first problems that came up last fall was in regard to income limits and where they were going to be set.

A study committee was appointed to consider that and brought back a series of reports to the Board of Directors. I was on that committee. Then a committee was appointed to study the problem of arrangements for a rigid income limit. I was on that committee. We have carried through with these meetings and studies with the attitude of formulating a reasonable arrangement to be adopted.

At the outset, my stand was that the limits should stop strictly at $2,500. That is not my stand at the present time. The change came about through this study of the problem and the solution comes in the Surgical Benefit Certificate that you have received by mail, which was the result of the questionnaire mailed to every doctor in the State of Michigan.

The necessity of an over-income group arises from several sources. Employers will not concede that there should be a sharp limit; labor does not agree that there should be that restriction. There is no part of the public that would accept a strictly limited contract. However, both employers and labor are perfectly willing that those in the over-income group be accepted as a part payment group.

I have drawn around this revised Surgical Benefit Certificate everything that will protect the doctor and yet make it acceptable to the public.

**Report on Resolutions Referred by MSMS**

Seven motions were put before the House of Delegates of the Michigan State Medical Society last year, only three of which carried.

*Income Limits.*—Motion from Genesee County restricting the income limits to $2,000 and $1,000 was rejected.

*Limited Liability.*—Motion of Dr. Insley of Wayne for consideration of a limited liability plan. Under the present enabling legislation, such a plan is not possible. Then there is the question of cash reserves and assessments. Employes object to a limited liability type plan; they feel they can obtain such coverage from standard insurance companies.

*Expanded Personnel.*—Oakland County presented a resolution asking that Michigan Medical Service personnel be expanded. Exactly what was done in the way of obtaining a Medical Director, I do not know. Dr. Carstens told me he had interviewed twenty-five applicants and found none satisfactory. At the present time, Dr. C. D. Moll of Detroit is acting as Medical Director.

At the present time, there are eight executives with a total of fifty-three years of insurance experience.

**Late Reporting**

Your complaints that are made frequently in regard to late payments are valid. Some very good figures are available on late reporting. Some months as high as 68 per cent of the reports are received one month late. In our best month, 35 per cent of the doctors send their bills one month late.

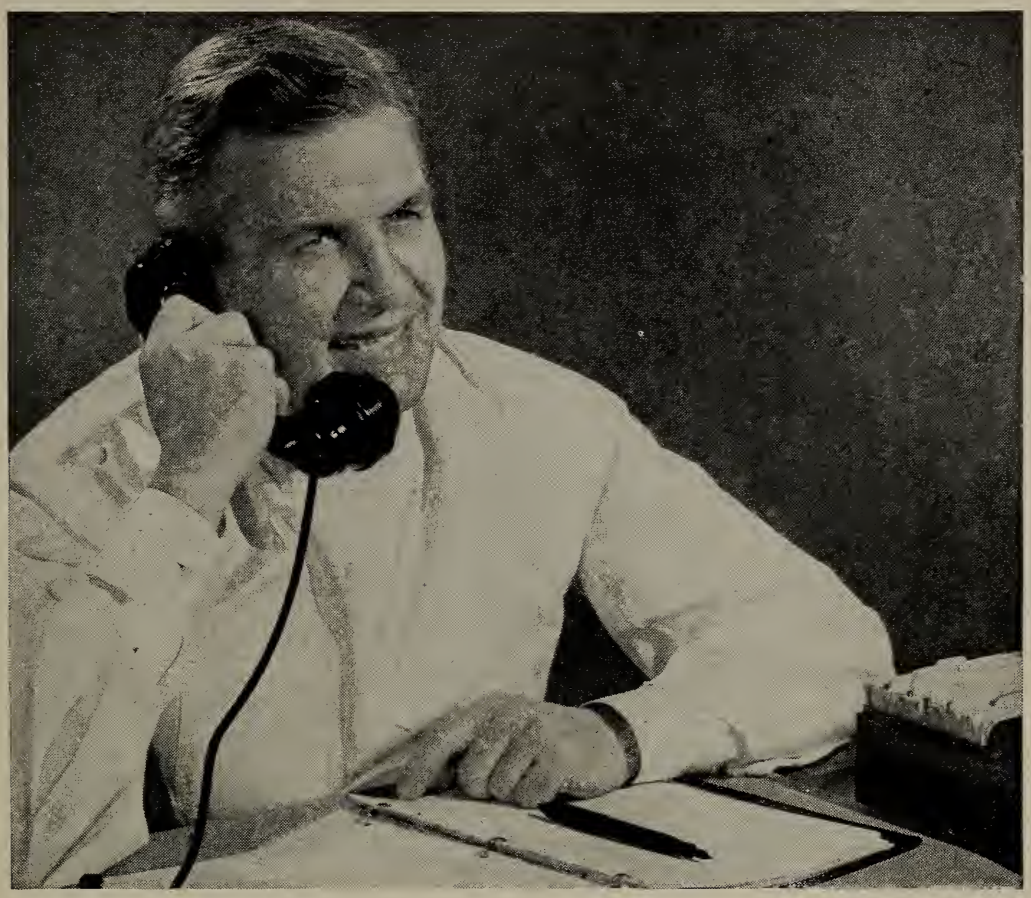
When you receive a late payment, remember when you sent the bill and not when the operation was done.

**Frequent Services**

Two major items of service under Michigan Medical Service are tonsillectomies and appendectomies. They constitute 40 per cent of the services rendered and 21 per cent of the total payments. While in the general public, forty tonsillectomies per 1,000 persons is the average, under Michigan Medical Service this figure is trebled to 120.

That additional influx of business is business you receive.

*(Continued on Page 1030)*



# Why Biolac is indicated for busy physicians today

YOU'VE NEVER BEEN SO BUSY—and the chances are you'll be busier yet before this war is over.

Naturally, you welcome any scientific advance that will save you time . . . cut out unnecessary work.

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● *Biolac is prepared from whole milk, skim milk, lactose, Vitamin $B_1$, concentrate of Vitamins A and D from cod liver oil, and ferric citrate. It is evaporated, homogenized, and sterilized.*

*(Continued from Page 1028)*

**Medical Coverage**

The original idea of Michigan Medical Service was complete medical coverage. Some of you feel let down that we do not have complete medical coverage.

We had a Medical Service Plan—complete with home, office, and hospital calls; the ideal setup so far as rendering service—with approximately 7,000 subscribers.

It cost Michigan Medical Service $112,000 to service 7,000 subscribers. We have now cancelled practically all of these Medical Service Certificates. With this experience, we have a fair actuarial idea of what such a plan would cost—$10 per month per family—$120 a year.

It is available but we do not believe there is anyone in the income group we cover who is going to pay $120 a year for it.

We have been considering a plan of medical coverage limited to medical illnesses hospitalized—something in the way of an acute emergency medically.

**Payments to Doctors**

As of August 31, 1942, Michigan Medical Service had paid to doctors approximately $2,500,000. There was sent to every doctor in the State of Michigan a statement showing the amount of money he has received from Michigan Medical Service.

We have had a problem in payment in Genesee County where the doctors do not wish to accept a check and we have to pay in cash. This is a considerable expense to the corporation and an annoyance to the doctor involved. This is one of the things I hope can be straightened around.

Of the fifty highest paid doctors, 54 per cent were participating and 46 per cent were not participating. These fifty doctors received 17 per cent of all payments.

**Schedule of Benefits**

In regard to the fees under Michigan Medical Service and whether or not they are equitable—it is in the hands of the doctors to make those decisions.

Our schedule runs higher than any commercial company—as much as 50 per cent to 100 per cent higher except for two items. Henry Ford Hospital and every hospital in the state except Hurley in Flint accepts our fees as full payment. I am using this to point out that these fees may vary but by and large they are equitable.

**Amendment to Articles**

We have a lot of problems at hand which have to be solved and it is a question of getting to those problems. As a result of my study of the program, I have reached certain conclusions which have been incorporated in an amendment to the Articles of Incorporation of Michigan Medical Service. This is a method whereby the Michigan State Medical Society can retain control and yet Michigan Medical Service will be run by men who are interested in the plan.

From now on so far as I am concerned and with the consent of the Executive Committee there will be no such thing as a participating or non-participating doctor when it comes to rendering service and receiving payment from Michigan Medical Service. When it comes to running the corporation, I do not believe the non-participating doctors should be included in that group.

All this has been incorporated in an amendment to the Articles which we will take up in detail later.

**Financial Report**

The next problem we face is that of finances—a problem which is extremely difficult.

You realized last year when a 20 per cent pro ration was made over a period of six months that something was wrong. The problem before the Board of Directors was to stop that pro ration. Labor maintained that the doctor must be paid 100 per cent and stated that, if it was necessary to raise the rates, they would go out and sell it to their own members.

The rate could not be adjusted at that time since contracts were made for one year. Today contracts are made for a period of one month to allow ready flexibility for such rate changes.

We have also put into effect a rate increase of approximately 25 per cent. In all groups where the new rates are presented, there has been a greater enrollment.

It should be explained that we had the Insurance Department examining our books and we expected their report to act as an audit. They were called off the job, however, and it was never completed. Since there were several requests for same, an audit has been made.

At this point, I will turn you over to Mr. Ketchum and the Auditor's report.

**Exhibit B**

**REPORT OF EXECUTIVE VICE PRESIDENT**

Three years ago the people of Michigan expressed their faith and confidence in the medical profession of Michigan by granting a franchise to engage in what is often referred to as an experiment in a new method of distributing medical care.

Briefly, this franchise granted the privilege to solicit, sell to, and take funds from citizens of Michigan in payment for medical service; but it also imposed an obligation on the profession—to make available and to deliver on demand such services as were contracted and paid for by the subscriber.

You may still consider the operation of the plan an experiment; I can not agree that 500,000 people and $2,500,000 annually are the proper subject for experimentation.

I can think of few other professional groups which would have been entrusted with such a franchise without usual safeguards, cash deposits, and capital funds as are required of insurance companies or other operations of a trust nature. The only requirement of this nature was that the plan have available $10,000 of working capital at the beginning. It was not even a requirement that the officers be bonded for the protection of the public.

*(Continued on Page 1032)*

## NO MATTER WHERE YOU PRACTICE . . .

● The day is past when a patient requiring a scientific support must wait long weeks to secure it. Today, doctors can specify Camp Scientific Supports, knowing that they are instantly available in almost every city and town the country over.

They know, too, that the design and construction of Camp Supports are approved and endorsed by important medical authorities. In addition, Camp Authorized Service assures doctors that their individual prescriptions will be carefully filled by experts—specially trained by the Camp organization—each one a staff member of a reputable department store or specialty shop located nearby.

**CAMP Supports**

S. H. CAMP & COMPANY, JACKSON, MICHIGAN

*(Continued from Page 1030)*

The enabling legislation was enacted in very nearly the form in which it was proposed by representatives of medicine. The act left to the medical profession the determination of the scope of contract, rates, fees—in fact, the entire operation. Therefore, there can be no argument but that the problems now to be considered are of the professions' own making, to be squarely met and by the profession resolved in the best interests of not only the profession but of the public.

It is argued that Michigan Medical Service is not the plan contemplated back in the days of study and research prior to organization—that mandates and principles have been ignored and violated; that management has been inefficient, incompetent and self-serving; that other influences have dominated the conduct and affairs of the plan, etc., etc.

It would accomplish little if I were to discuss the pros and cons of these arguments and statements and time is all too short in which to accomplish more important ends.

I believe it my duty to inform this body of facts and figures as they now exist; advise as to possibility of cure; and the probabilities of reactions of the subscribing public to any proposed actions and revisions.

One important phase of the problem you must consider is financial. Please bear in mind that this is not the most serious or difficult phase. I will return to and repeat that statement after presentation of the financial statement of Michigan Medical Service as of June 30, 1942, as determined and certified by Lybrand, Ross Bros. & Montgomery, Certified Public Accountants. This statement reveals a deficit in operations during the first six months of 1942 of $253,000 or a total since inception of $361,000. New increased rates were not in effect during this period. Experience records indicate that the first six months of each year are the most costly.

I will attempt to outline the financial condition and some of the reasons and some of the cures. Statements are being distributed to you and, as soon as you have them, I will attempt to outline the most salient points of interest.

Very briefly, there is one all important feature in any balance sheet—at least from a layman's point of view it is more indicative of the nature of operations—either a deficit or a surplus. In this case, there is a deficit of $361,000.

This does not mean, under the peculiar legislation which enabled the formation of the corporation, that you are bankrupt. Peculiarly, our cash position is good, although the balance carried in the bank is small. In other words, you and I and many other people went through it in 1932-33-34-35—living from hand to mouth, paying your bills, but if anyone stopped your income, you'd probably have been insolvent. That is exactly the case of Michigan Medical Service. We are paying our bills as rapidly as time will permit and we are facing a deficit.

The figure which the doctors are probably more concerned with than any other is the $454,000 of estimated reserves for claims incurred prior to June 30, 1942. This figure takes considerable explanation. There is a note C following the financial statement page which explains to some extent how this figure was arrived at.

Dr. Novy told you very briefly of the difficulty of obtaining notice of claims from doctors in Genesee County. It is much more difficult than Dr. Novy led you to believe when it comes to setting claim reserves.

However, do not worry about this $454,000 in the statement because this $454,000 is now, with the exception of $100,000, entirely paid. We have another reserve which is now due doctors for services rendered—approximately $100,000 prior to June 30, 1942, and the balance since that date.

As far as the Audit Report is concerned, I think the other figures more or less speak for themselves.

I said that the finances were not the most important or difficult problem. They are not—the cure is well under way and it is the first time that Michigan Medical Service has had a chance to break even or accumulate reserves. We have under our belts about three years of experience—how much service is rendered; how the service declines after fifteen months; and how much money it is going to take for the tremendous amount of services rendered. Our surgical groups in the main have been seasoned eighteen months. The newest group, which was the largest, has been seasoned for ten months. General Motors is one of the contracts which runs for a year and will not expire until November 1, 1942. Our new rates have been applied to every other large group, including Chrysler. Chrysler Corporation was reenrolled about four weeks ago and resulted in a 38 per cent to 52 per cent increase, which shows that the public still has faith in your plan and is willing to pay the increased rate and will pay any rate necessary to provide this type of service.

In addition, as to our cash position, we will be much better off inasmuch as beginning in July the groups are being resolicited and groups which had previously paid for the service after the premium or rate was earned are having a double deduction taken in one month to revert to a prepayment basis. As an example, during the month of September, we collected twice the monthly subscription rate. Beginning October 1, 1942, Chrysler Corporation will be on an advance premium basis and General Motors on November 1, 1942.

Several contacts evidence that the subscribing public still has entire faith and confidence in the medical profession through Michigan Medical Service. There have been approximately twelve large groups—and by large I mean tens of thousands—resolicited since July 15, 1942, and in almost every case there have been increases in the number of subscribers enrolled. Incidentally, I can not give you the General Motors figures but they have increased. If there were a lack of faith, it would certainly be evidenced in Genesee County. The figures that I received at 1:15 o'clock this afternoon indicate that the account of enrollment in Genesee County was approximately 65 per cent, which is a 2 per

*(Continued on Page 1034)*

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*(Continued from Page 1032)*

cent or 3 per cent increase of enrollment figures over last year. I have definite figures on certain other groups if anyone is interested.

If your plan is or is not what individuals or groups of the profession feel was contemplated back in 1934 or since, it is a package presented by medicine to the people—bought and paid for as far as the public is aware, with the endorsement and approval of the medical profession of the state—and I do not mean by counties!

Amendments to now drastically restrict the scope of the plan will result in the loss of subscriber support and income without which recovery and ultimate retirement of the deficit will be impossible. Continuance of the present form of contract will give at least a reasonable possibility of ultimate financial soundness and the honorable discharge of your obligation to the people.

---

## CANCER—A DEFICIENCY DISEASE

The infrequency of cancer among native races, living under primitive conditions, has been repeatedly observed. However, when these same natives adopt white men's dietary and mode of life there is a definite increase in the incidence of cancer.

A probable relationship of the meat diet to cancer is suggested by the experimental studies of diet on the tar cancer in mice by Maisin and Pourbaix. Their work was a confirmation of previous observations of Oike, Auler, Sugiura and Benedict, Zeitlin, Fourleton, Rosenstein and Kohler, Tesauro, and others.

Maisin and Pourbaix demonstrated clearly that normal organs contain not only cancer growth-promoting factors but cancer growth-inhibiting factors as well, and that through the interaction of these the healthy organism possesses a cancer cell growth regulatory system. Both factors may be present in the same organ and the action of the whole organ is equal to the difference between the two.

### Conclusions

1. Primitive races eating freely of visceral organs as well as muscle meat, have very little cancer.

2. Civilized white men, limiting their flesh diet practically exclusively to muscle meat, have a high cancer incidence.

3. The cancer rate of primitive races increases as visceral meat is decreased in the diet.

4. Cancer is probably a dietary deficiency disease due to absence of some constituent of certain visceral organs. From the investigations of others it appears that this constituent is most abundant in brain and stomach tissue.

5. Therefore, to prevent cancer, one might conclude that brain or stomach tissue should be added to the diet.

6. The name "Vitamin N" is tentatively suggested for the cancer inhibiting factor.—HUGH McDONALD, *Ill. Med. Jour.,* (Sept.) 1942.


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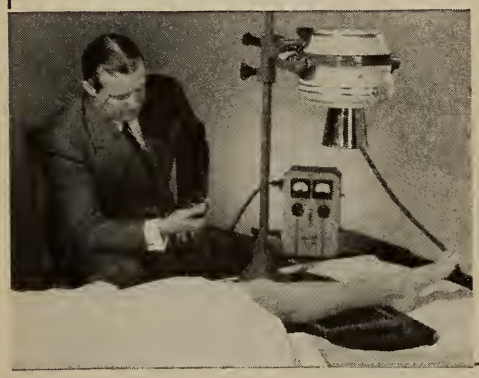

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# The Response of Tumors to Radiation*

By Shields Warren, M.D.
Boston, Massachusetts

Shields Warren, M.D.
*B.S., Boston University; M.D., Harvard Medical School, 1923; Assistant Professor of Pathology, Harvard Medical School, 1936 to date; Director, Massachusetts State Tumor Diagnosis Service, 1928 to date; Pathologist to New England Deaconess Hospital, 1927 to date, C. P. Huntington Memorial Hospital, 1928 to date, New England Baptist Hospital, 1928 to date, Pondville State Hospital, 1928 to date; Chairman, Cancer Committee, Massachusetts Medical Society; Vice President, American Association for Cancer Research.*

The response of tumors to radiation is based on the sensitivity of the type cell, the character of the supporting tissues, and the effect on the normal tissues of the host. Depending on their response to radiation tumors may be classed as radio-sensitive, radio-responsive, and radio-resistant. Radio-resistance may be acquired following radiation therapy.

The tissue reactions for a given dose are fairly constant and characteristic regardless of minor variations in wave length. Recently irradiated tissue is very susceptible to infection.

While there are wide variations in the response of individual tumors, certain general principles have been established that permit some degree of prognostication of therapeutic effect.

First, there is no significant, if any, variation of response of tumors to therapeutic radiation within the range of wave lengths ordinarily used. Even pure beta radiation, such as that obtained from radioactive phosphorus, has a similar qualitative effect on tissues to that of x-rays or radium. Because of the greater local absorption, beta radiation does have a more marked necrotizing effect. All these forms of radiation have an ionizing effect upon the cell.

Second, the amount of radiation delivered to the tumor and the time intervals at which the dosage is received are important factors in determining the response.

Third, the effective dose of radiation exerted on a tumor in the organism is fortunately at an appreciably lower level than that exerted on tumor cells of similar type *in vitro*. This is dependent in large part on the response of the stroma of the tumor to radiation.

Fourth, tumor cells may be ranged in sensitivity to radiation according to their embryonic origin and the degree of differentiation to which they have attained. In general, the less highly specialized tissues and the less differentiated cells are the more susceptible to radiation. However, this is subject to just enough variation so that we have to rely in large part on an empirical basis for determining radiosensitivity.

It might be well to define our terms before going further. Those tumors are considered radiosensitive which show appreciable regression or disappearance when treated with an amount of radiation equivalent to 2500 r of 200 kv. x-ray delivered in the usual divided doses. Tumors may be considered radioresponsive when regression or disappearance is obtained in the range between 2500 r and 5000 r, and they are considered radioresistant when a dosage above 5000 r is required. These limits have been selected because in the majority of persons 2500 r given in divided doses will not produce appreciable permanent change in normal tissues; whereas in the range up to 5000 r, some change will be produced, and in the range above 5000 r permanent damage will be done to normal tissues in the field of radiation that may even exceed the damage to the tumor cells themselves.

The response of the tumor is conditioned primarily by the reaction of the neoplastic cells to

*Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 18, 1941.

radiation, but this is modified by other circumstances among which are: first, the character of the stroma; second, the vascular supply; third, the presence or absence of infection.

If one takes as an example of a radioresponsive tumor a basal cell carcinoma of the cheek, which will often show satisfactory regression with 4000 r, one has a well-vascularized bed made up of connective tissue or muscle and usually no infection. In contrast to this, a basal cell tumor of the forehead which has eroded the frontal bone and possibly permitted the development of a mild osteomyelitis responds very poorly to the same amount of radiation because of the poorly vascularized, relatively inert supporting tissue and the occurrence of concomitant local sepsis.

### Changes After Radiation

When one follows through the changes that take place in a tumor and its stroma, the reason for the modification of the effect by environmental factors may be readily seen. The immediate effect of radiation on the tumor cells is an arrest of mitosis. This may appear within an hour and usually persists for eighteen to twenty-four hours. This is accompanied by varying degrees of necrosis and degeneration of the irradiated tumor cells ranging from vacuolization, swelling of the mitochondria, and disintegration of the Golgi apparatus to complete necrosis with or without polymorphonuclear infiltration. As delayed effects one may find that chromosomal abnormalities established by sublethal injury may lead to death of daughter cells several generations following the initial irradiation.

The stromal changes may be divided into two parts; those that occur in connective tissues and those that occur in blood vessels.

In connective tissues the initial change is a swelling of the collagen fibers with some local edema and degenerative changes in the fibroblasts that may progress to actual necrosis. With the passage of time the collagen becomes hyalinized and dense so that a fairly effective barrier is formed that may hinder the spread of the tumor on the one hand or hamper its supply of nutrition on the other. The dense hyaline scars resulting from this alteration of collagen persist for years without appreciable retraction. The smoothness and flatness of radiation scars are quite a contrast to the contraction from the scar of a burn from boiling water or from the passage of an electric current. In this connection, it is important to remember that the eradication of a tumor by means of radiation may require the production of a marked inflammatory response or ulceration, all too often mistakenly regarded by the layman as evidence of poor therapy.

The changes in the blood vessels are at first dilatation followed in a few hours or days by a diapedesis of red cells with local edema and congestion. This usually parallels the height of the cutaneous reaction. Some of the smaller vessels may show actual thrombosis and subsequent occlusion through organization, whereas others will show marked endothelial proliferation with resultant narrowing of the lumen. After some weeks have elapsed the late vascular changes become even more marked. The endothelial proliferation may continue. Fibrosis and hyalinization of collagen of the subintima and in the media may occur, as well as degeneration of the elastic coats and the elastic tissue of the intima. These vascular changes are not restricted to the arteries, but also involve the veins, many of the capillaries, and the more intense fields of radiation are thrombosed and obliterated. Other vessels, sometimes very late, undergo ectasia giving the dilated vascular channels, the irregularly coursing telangiectases, that are so characteristic a feature of the late radiation change in the skin. These vascular changes inevitably result in impaired nutrition of the tumor with consequent delay in its growth rate or hindrance to its survival.

Radiation reaction in any tumor hinges on these three component factors: changes in the cells themselves, changes in the connective tissue, and changes in the blood vessels so that the ultimate response, no matter how varied it may appear grossly, is based on the same component factors.

### Limitations to Radiation Therapy

There are certain obvious limitations to radiation therapy just as there are to the surgical treatment of tumors. It is important not to confuse a radiosensitive tumor with a radiocurable tumor. Obviously, if metastasis or extension of the tumor has occurred beyond the field of radiation, cure of even the most sensitive tumor will not be obtained. The normal tissues of some individuals may prove unexpectedly sensitive to

radiation so that more extensive radiation burns will be produced than is usual, giving added discomfort to the patient. Sometimes, unfortunately, tumors which are initially radioresponsive may become resistant, probably through the killing of the more sensitive cells and thus obtaining a selection of the more resistant cells.

As an example of a radiosensitive tumor let us take a lymphosarcoma, where, with a relatively light dose of radiation, complete and dramatic shrinkage of the tumor will occur, although recurrence is apt to develop. The lymphocyte is among the most susceptible of all cells in the body and the tumors derived from it are correspondingly susceptible. Death of lymphocytes may occur in a few hours after a dose of less than 200 r. Nevertheless, after a few months have gone by the tumor recurs and not only grows with all its initial vigor, but fails to regress with a dosage previously effective.

In general, the connective tissue tumors are resistant to radiation, although it is possible to find isolated examples showing the contrary. Thus, a fibrosarcoma is an extremely resistant tumor and rarely, if ever, shows appreciable regression.

The carcinoma of the breast may be classified as a resistant tumor. The chief field for radiation here I believe to be the control of postoperative recurrences and the treatment of metastases. The primary tumor itself as well as the axillary metastases are usually resistant to radiation, and while cures may occasionally be obtained with the use of radium needles or intensive x-ray radiation, better results may be obtained with less pain and disability to the patient by the surgical approach, provided operation is possible.

Still another contrast is afforded by contrasting tumors in the same tissue, as the radiosensitive Ewing's tumor of bone and the highly resistant osteogenic sarcoma.

Judging by the developments of the past two decades, as the experience in radiation therapy increases, and as technical improvements become available, now confusing discrepancies in response will undoubtedly be cleared up, and the therapeutic results will be much more encouraging than those of today.

MSMS

# Child Guidance Program of the Michigan Hospital Commission

**By Frank F. Tallman, M.D.**
**Director of Mental Hygiene**
**Lansing, Michigan**

FRANK F. TALLMAN, M.D.
*M.D., University of Alberta, Edmonton, Alberta, Canada, 1927. Director of Mental Hygiene for the Michigan State Hospital Commission. Fellow of the American Psychiatric Association, American Orthopsychiatric Association; Diplomate of the American Board of Psychiatry and Neurology.*

■ ONE of the duties of the Michigan State Hospital Commission as defined by statute is to "Develop and constitute a state wide mental hygiene program with emphasis on the promotion of mental health . . ."

At the last regular session of the Legislature sufficient funds were appropriated to initiate such a program by the establishment of three resident child guidance clinics. Each clinic will serve a territory within a radius of sixty miles.

Interested communities were invited to make application for the service by demonstrating adequate community readiness and sufficient resources to insure a well prepared and stable center from which to operate. In addition they were expected to provide suitable quarters, supplies and salary of the receptionist-stenographer. The Commission is responsible for the salaries of the professional staff and through its Director of Mental Hygiene, general supervision and direction.

Units are now in process of organization at Kalamazoo, Muskegon and Saginaw. A similar clinic has been in operation at Lansing since 1938 and was made possible by a grant to the Commission from the Michigan Children's Fund and contributions from the community. The general direction and operation of this center is the responsibility of the Commission and will now operate in the same manner as the new units. Plans call for the establishment of units in other areas when additional appropriations are made available.

The professional staff consists of a child psychiatrist, psychiatric social worker and psychologist. They function by bringing to bear on each case their separate skills and at a subsequent conference all the information so obtained is

pooled and the proper handling of the problem thus determined.

The most numerous referrals come from physicians, probate judges, school personnel, case work agencies and parents. The following list of complaints taken from a clinic journal are typical of those presented for study:

| | |
|---|---|
| "Nervousness" | Chronic quarrelsomeness |
| Enuresis | Feeding difficulties |
| Sleep disturbances | Neurological consultation |
| Tics and habit spasms | Thumb sucking and nail biting |
| Obsessions and compulsions | Convulsions |
| Excessive shyness and whining | Fears |
| Anxieties | Excessive day dreaming |
| Chronic disobedience | Temper tantrums |
| Speech problem | Over-activity |
| Unsubstantiated complaints of illness | Sex difficulty |
| Subject difficulties | Restlessness |
| Lying | Emotional instability |
| Transfer from broken home | Misbehavior in school |
| | Stealing |
| | Truancy |

The several types of service offered by the clinics are detailed below:

1. *Consultative.*—A consultation is held between the conferring agency, such as the physician or social worker and the clinic staff. From the facts supplied suggestions are made for treatment of the patient which is carried out by the individual or agency requesting advice.

2. *Diagnostic.*—When the service is diagnostic in scope the child is brought for study by the professional staff of the clinic. At a subsequent conference, a treatment program is decided upon which is carried out by the referral agency under the guidance of the clinic staff.

3. *Therapeutic.*—This service is provided for patients who require highly specialized and lengthy therapy. In this situation the clinic assumes the responsibility for the complete treatment for as long as may be necessary.

It must be emphasized that it is rarely possible to decide which of the aforementioned services should be outlined until preliminary study is complete. Thus consultation may lead to diagnostic study, the result of which may in turn indicate the need of full and prolonged psychotherapy at the clinic.

Physical problems are not dealt with at the clinic but are referred to the family physician for attention. When indicated, a neurological examination is made and if a treatable condition is discovered, it too is referred.

In dealing with the problem, either direct or indirect psychotherapy may be used. Indirect therapy seeks results by manipulation of the material and environmental factors and by reorientation of the destructive emotional attitudes involved. The direct approach places therapeutic emphasis upon the child himself and usually involves a long period of frequent treatment visits to the clinic. However, since behavior is a result of an individual's attempt to adjust his inner drives to the restraining forces of his environment, it is obvious that all therapy must consider the setting in which the problem has developed. Thus the successful handling of any case requires attention to such social units as the home, school and community.

Included among the various functions of the clinic is the extremely important one of community education, interpretation and integration. The highly desirable goal to be reached is a community sensitive to the emotional needs of children and an awareness of the importance to the individual and to the nation, of providing for them an environment which is conducive to growth towards emotional and intellectual maturity. The clinic personnel, therefore, in working with a case, attempts to coöperate as closely as possible with all agencies dealing with children. The staff, and in particular the clinic director, is willing to address any group who wishes to avail themselves of this service.

An organized part of this general program is to offer training courses to guidance counselors, teachers, social workers and other interested groups. It is expected that these facilities will be available in the near future for social workers and psychologists who wish prolonged training in this specialized field. In addition to this full-time training program any local physician especially interested in child guidance is welcome to work in the clinic under the guidance of its director for a specified time each week.

The following policies adopted by the State Hospital Commission with respect to the operation of Child Guidance Clinics, are of general interest to the medical profession and therefore appended:

"No child guidance clinic shall be authorized to charge fees for service but gifts may be accepted in

the name of the Hospital Commission to be used for the furtherance of the program of the clinic for which the gift was designated.

The directors of any child guidance clinic operated by the Hospital Commission shall not at any time engage in private practice, either consultative or general."

An attempt has been made, through this short statement, to describe a part of the Commission's mental hygiene program; to discuss the organization of the clinics; to indicate the kinds of cases admitted and the various types of services offered.

It is hoped that the profession will utilize not only the clinical services available but will associate itself as closely as possible with the activities of the clinic. Physicians are cordially invited to visit the center at any time and to join in case conferences whenever their schedule allows.

MSMS

# Nodular Symmetrical Lipomatosis*

## Review of Literature and Report of a Case*

By J. C. Foshee, M.D., F.A.C.S.
and
J. B. Wilkes, M.D.
Grand Rapids, Michigan

JOHN C. FOSHEE, M.D.
*M.D., Vanderbilt University, 1916. Fellow American College of Surgeons. Member, Senior Surgical Staff, Butterworth Hospital; and Visiting Surgical Staff, St. Mary's Hospital, Grand Rapids. Member, Michigan State Medical Society.*

JOHN B. WILKES, M.D.
*M.D., Vanderbilt University, 1939. Assistant resident in Surgery, Ohio State University, Columbus, Ohio.*

A SIMPLE lipoma which can so easily be cured by surgery is usually removed without much thought being given to its etiology. In cases of multiple tumors, however, the questions of etiology and other possible forms of treatment arise, for removal of these tumors is undesirable.

### Etiology

Strangely enough, although there has been much speculation and many theories advanced concerning these tumors since Dercum[4] in 1892 published his classical description of massive painful lipomata, the etiology of all forms of lipomata is still obscure. Numerous early theories were advanced without much basis, among which were those of a dysfunction of the mesencephalon and the diencephalon, and a dysfunction of the pineal gland or subthalamic region, or both. Lyon,[9] in 1910, after an extensive review of the literature, concluded that all forms of lipomata are variants of the same condition and are due to "metabolic changes."

The theory of an endocrine imbalance has, of course, been advanced by numerous workers. Both the thyroid and the pituitary have been presented as factors, the former due to its frequent enlargement in cases of adiposis dolorosa and the latter due to its known function in fat metabolism. Neither of these theories seems to be supported by facts or later studies.

The embryonic theory has been supported by Shaw,[14] Hatai,[5] Binnot,[3] and others, who report finding adipose cellular colonies in human embryos in the axilla, in the proximity of the pleura, in the intrascapular and suprascapular regions, in the neck, in the breasts, in the peritoneal tissue, and in the anterior abdominal wall.

The hereditary or familial theory has been supported by various writers.[6,7,8,10] Adair, Pack and Farrior[1] classified the multiple lipomas into two groups, one of which they state is confined to one or two limbs, is usually associated with enlargement of the muscles and bones of the same limb, and is congenital; the other, however, they regard as neurolipomas and of neurogenic rather than of congenital origin, since they develop in later life. The neurogenic origin of lipomas has been suggested by various other writers, due chiefly to the usual symmetrical distribution of these tumors and their predominance along the course of the cutaneous nerves.

Barber[2] in 1940 reviewed the literature and reported three cases of symmetrical nodular lipomatosis. From these cases he concluded that there are two forms of nodular circumscribed lipomatosis—an acquired form appearing about the menopause accompanied by considerable pain, and a hereditary and familial form, which is painless.

A nervous factor has been presented as a possibility in the etiology by numerous writers. Others have suggested a relationship between

*From the Department of Surgery, Butterworth Hospital, Grand Rapids, Michigan.

rheumatic fever and lipomatosis. A syphilitic factor has even been considered. Some writers have reported a frequent association of large pigmented nevi with lipomatosis. Local tissue irritation either by infection or trauma, or both, has been presented as stimulating the excessive deposition of fat to form a tumor. Peacock[11] states that lipomatosis is a disease only of the degenerative period of life and attributes it to catabolic processes.

The following case of nodular symmetrical lipomatosis is presented both because of its comparative rarity and because it presents several features of interest in common with other cases of this type.

Fig. 1

Fig. 2

Fig. 1. Fig. 2. Linear marks denote scars of previously removed tumors; oval areas indicate the tumors now present.

## Case Study

Mr. F. B., white, male, aged forty-seven, office worker, was referred to us, complaining of a lump on his right leg which he had noticed for five years, and lumps on both arms which he had noticed for three years. These had grown slowly and had never been painful or tender. The past history was not remarkable except for a "nervous temperament" all his life. He gave a history of "spells," characterized by first a generalized headache, then a pounding in the neck moving down later over the precordium, and then a "burning and numbness" in his left arm. His left arm at times would "pull" itself backward, and he would lose control of it. Massage would relieve this. These "spells" always came on after lunch and occurred at intervals of one week to three months. There was no history of rheumatic fever, precordial pain, palpitation, cyanosis, or edema. He had had frequent attacks of tonsillitis and quinsy until tonsillectomy three years ago. There was no family history of similar tumors. His father had died with a ruptured appendix at age 65, but his mother, two brothers, three sisters, and two sons were all living and well and there was no family history of cancer, tuberculosis, diabetes, kidney or heart disease.

### *Physical Examination*

Physical examination revealed a soft, non-tender tumor mass about 3 cm. in diameter on the anterior aspect of the upper right thigh and four more smaller ones on the arms, three on the medial aspect of the right arm about 10 cm. above the medial epicondyle, and one on the medial aspect of the left arm, about 10 cm. above the medial epicondyle. These were all firm, round, smooth, unilobular, non-tender, and were attached to the deeper structures but not to the skin. There was a slight bluish tint to the skin over the tumors. There were three large pigmented nevi in the left axilla and one large nevus and seven or eight small ones in the posterior thoracic and lumbar regions. The thyroid was not palpable. The throat was not injected. The heart was of normal size, rhythm, and sounds. The lungs were clear to percussion and auscultation. The abdomen was not rigid or tender, and there were no palpable masses. His height was 69½ inches and his weight 162 pounds. The rest of the physical examination was not important. Blood counts were within normal limits, the urine was negative, and the Wassermann reaction was negative.

### *Treatment and Findings*

On August 19, 1941, under local infiltration of novocaine anesthesia the above mentioned tumors were removed. They were all found to be circumscribed and encapsulated and they ranged in size from 2 to 4 cm. in diameter. Pathological examination was done by Dr. W. P. L. McBride and the diagnosis of each specimen was lipoma.

On August 23, 1941, two similar tumors were removed from the medial surface of the left forearm.

They had evidently been present at the time of the first operation, but were small and were not noticed until several days after the first operation.

On September 19, 1941, five similar tumors were removed—one from the anterior aspect of the left leg 20 cm. above the knee, one from the posterior surface of the right leg, about 6 cm. above the knee, one from the medial surface of the right forearm just below the elbow and two from the medial surface of the right arm, just above the sites of the previously removed tumors.

On November 11, 1941, he was called back into the office for a complete check-up. At that time he had three more small tumors which he had noticed about a month—one on the antero-lateral surface of the left leg in its upper third, one on the medial surface of the right arm just above the elbow, and one on the medial surface of the left arm just above the elbow.

Laboratory data at that time showed a R.B.C. of 4,460,000, hemoglobin 13.2 gms., W.B.C. 6,800, and differential of 66 per cent polys, of which 3 per cent were non-segmented, 32 per cent lymphocytes and 2 per cent monocytes. The B.M.R. was plus 11 per cent. The sedimentation rate was 3 mm. in one hour. The Wassermann reaction was negative. Skull plates showed a normal sella turcica. Roentgenograms of the long bones of the arms showed no evidence of pathology. Blood chemistry showed calcium to be 14.1 mgm. per cent on one occasion and 11 mgm. per cent on another, phosphorus 3.4 mgm. per cent, and cholesterol 229.6 mgm. per cent on one occasion and 190.4 mgm. per cent on another.

The patient was last seen a few days ago, at which time he had developed another small lipoma in the left buttocks. Photographs were made (Figs. 1 and 2).

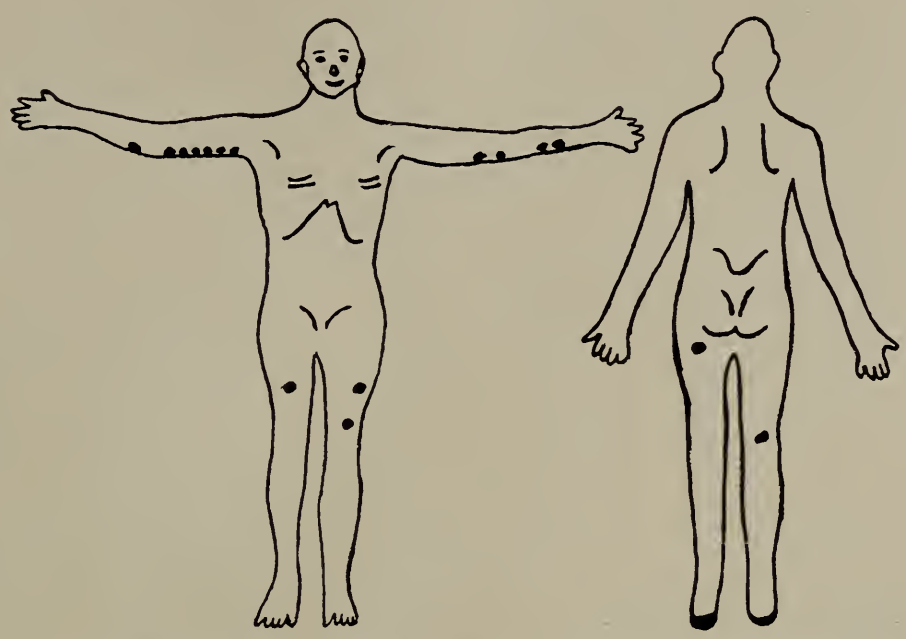

Fig. 3. Drawing showing the remarkable symmetry of these tumors and their predominance on the flexor surface.

## Discussion

Although these tumors have been found in all parts of the body they predominate on the flexor surface of the arms, the neck, the upper legs, the gluteal region, and the trunk supplied by the cutaneous branches of the intercostal nerves. The most frequent locations are the upper arms and thighs. They are usually symmetrical, in some cases rigorously so.

Our case presented sixteen tumors, all of which were located on the flexor surfaces of the extremities, except for one on the posterior surface of the right thigh and one in the subcutaneous tissue of the left buttocks. (Fig. 2.) They all developed in the fifth decade. The distribution was partly symmetrical and became more so with the evolution of the disease and the appearance of more tumors. The tumors were never painful or tender. They were all nodular and circumscribed.

The patient presented no evidence of endocrine imbalance. The B.M.R. was within normal range, and skull plates showed no evidence of pituitary pathology. His muscular development was not excessive and his long bones were of normal size and length.

In this case there was no association with rheumatic fever, infection, or trauma, and no family history of similar tumors could be elicited.

As in several other reported cases, there were several large pigmented nevi associated with the tumors, these being present only in the thoracic and lumbar regions, however.

### Summary

1. A case of symmetrical nodular lipomatosis is presented.

2. An extensive review of the literature regarding etiology of multiple lipomata is abstracted.

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# The Establishment of the Michigan Board of Health

**By Earl E. Kleinschmidt, M.D.**
**Chicago, Illinois**

Earl E. Kleinschmidt, M.D., Dr.P.H.
*B.S., University of Michigan, 1927; M.S., University of Michigan, 1928; M.D., University of Michigan, 1930; Dr.P.H., University of Michigan, 1936. Diplomate, National Board of Medical Examiners, 1931. Assistant Editor-in-Chief, "Journal of School Health." Chairman, Department of Preventive Medicine, Public Health and Bacteriology, Loyola University School of Medicine. President, American School Health Association. Member, Michigan State Medical Society.*

You have got your law, and I have commissioned you as members, but whether your Board will continue will depend upon the amount and kind of work you do as members of the Board.[1]

—Gov. John J. Bagley, 1873

There were several reasons why the State Board of Health came to be established in 1873, chief among them being the activities of certain indefatigable workers living in or about the city of Lansing. Other factors which undoubtedly paved the way for this movement, and which gave the promoters many of their ideas, were the lessons in hygiene which were learned during the Civil War by the members of the Sanitary Corps of the Army.[2] The coming together of large numbers of men made sanitary discipline necessary, and also enabled the sanitary officers in charge of the work to observe the effects of such discipline. From available accounts it is learned that the results achieved by the Sanitary Corps were amazing "to an extent that could scarcely be credited except by an eye witness."[3] "My father's experience as a young medical officer in the Civil War," writes Dr. Howard B. Baker, "impressed him with certain aspects of medical organization and he visualized these as applied to the medical relations of the State. I do not know whether the idea of a Michigan State Board of Health originated with him alone or with Doctor R. C. Kedzie, or with both jointly, but those two, working through the Michigan State Medical Society, gathered sufficient support to get action in the Legislature. . . . It is evident that in order to get the Legislature to act there must have been pretty active support of the proposal, in lay circles as well as medical."[4]

### Initial Effort to Establish a State Board of Health

According to MacClure, "the move for a State Board of Health would have been less vigorous had it not been that similar action had been taken in Massachusetts."[5] The State Board of Health of Massachusetts made its first annual report about January, 1870. One of those who received a copy was Dr. Henry B. Baker of Michigan, who at that time lived in Wenona, a small village outside of Lansing.[6] So impressed was Dr. Baker with the plan set forth in this report, that he immediately set about to frame a similar bill providing for a State Board of Health in Michigan.[7] In June, 1870, at the annual meeting of the State Medical Society, he read a paper openly advocating the establishment of a State Board of health in Michigan.[8]

One of Dr. Baker's first efforts to arouse the interest of others in his idea was an attempt to influence his partner in the practice of medicine, Dr. Ira H. Bartholomew.[9] But to Dr. Baker's plan Dr. Bartholomew is reputed to have said, "One man can do nothing." Dr. Baker persisted, however, until Dr. Bartholomew finally did become interested and thereafter, according to MacClure, "the movement was not confined to 'one man,' there were two men."[10]

Soon after the fall election of 1870, Dr. Baker had a conference with a newly elected senator from Lansing, Mr. I. M. Cravath.[11] The plan for a State Board of Health was revealed to the Senator and later at Dr. Baker's suggestion he introduced a bill in the legislature for the creation of one, and moreover "made it the main measure in which he was interested during the session. By individual effort with other senators and by speeches, he worked vigorously for the passage of this proposed legislation."[12]

For various reasons, however, it met with stiff opposition during the time it was being discussed by the Committee of the whole.[13] According to MacClure, "This may have been due to the presence on that committee of a dealer in drugs and patent medicines who may have thought the proposed legislation might interfere with his business."[14] Another reason which militated against its progress was the fact that, as originally drawn up, the bill would have legislated into office certain physicians named therein. Those named in the proposed measure included Doctors Robert C. Kedzie, Homer O. Hitchcock, E. W. Jenks, A. B. Palmer, I. H. Bartholomew, and H. B. Baker. This feature was strenuously objected to by the committee. In the House of Representatives it met with similar opposition.[15] Thus the first attempt to create a State Board of Health met with failure, but not for long. Events elsewhere were to give the proponents of the movement considerable assistance.

### Medical Profession Sponsors State Board of Health

At the twenty-second annual meeting of the American Medical Association on May 5, 1871, Dr. T. M. Logan of California introduced the following preamble and resolution which was afterwards adopted:

Whereas, The science of hygiene and its corollary, preventive or State medicine, are subjects eminently congenial with the purposes of this Association, inasmuch as they have for their objects the preservation of human life, and the removal of those causes of diseases and death which it is in the power of the legislation to ameliorate, if not eradicate; And Whereas, the great fundamental idea that was made the prominent element for medical association, and that led eventually to our national organization, was a higher standard of medical education; And Whereas, the present system adopted by our Colleges provides more and more satisfactorily for the thorough qualifications of the graduate, as regards the principles and practice of his art, but does not provide at all adequately for the special study and cultivation of questions of State Medicine; therefore be it

Resolved, That this Association recommends a distinct and separate chair of hygiene, independent of physiology, to be established in all our medical Schools, and constitute a part of the curriculum requisite for that diploma which confers one of the highest honors of the profession.

Resolved, That the inauguration of the enlarged philanthropic policy whether physical, whether moral, whether born of earth, of air, or of society, which are either openly or insidiously degenerating the human race.

Resolved, That this Association further recommends that initiative steps be taken, as soon as six States shall engraft State medicine upon their statute books, for the formation of a "National Health Council," whose objects shall be the prosecution of the comparative study of international hygienic statistics, and the diffusion and utilizing of sanitary knowledge; and that said Council shall be aided and assisted by this Association in using whatever influence may legitimately lay in their power, with foreign States, as well as with the medical profession and the people generally, in securing of State medicine in Massachusetts and California is worthy of our special approbation, and commends itself to other States for imitation; and therefore, the President of this Association is hereby authorized to nominate at this session, a committee consisting of one physician from each State in the Union to memorialize the Legislatures of all the other States to follow the example of one of the oldest, most enlightened and conservative, as well as one of the youngest, most progressive, and enterprising members of our glorified confederacy, who have led off in the right way, and at the right time, for the prevention of disease and the correction of those multitudinous agencies, coöperation in the ends and objects of public hygiene.

Resolved, That said National Health Council, although thus organized as a branch *per se,* shall be auxiliary to this Association, and shall constitute a special section on hygiene, to which all questions, germane to this department of medicine, shall be referred. "Only" to use the language of the great Virchow, "by thus working harmoniously together, by thus mutually enlightening each other, will our country gain an efficient organ to which may be properly confided the solution of the great question of the day, viz.; bodily and mental health, and development of future generations."[16]

Acting on this resolution, the president of the Association, Dr. A. Stille, named a committee on a "National Health Council" to memorialize the state legislatures of all states. Dr. Alonzo B. Palmer was named to represent Michigan.[17]

The following year this committee, at a similar meeting, reported that "a form of memorial was prepared, printed, and mailed to each State, with a view of bringing about a concerted move-

ment in every State in regard to such legislative action as the subject seemed to require. While your committee are not yet able to give any definite results of their action, still we report progress, and can confidently state that, although the requisite number of States have not yet conformed to the resolutions we were appointed to carry out, nevertheless, a general interest has been awakened throughout the length and breadth of our common country, in the great questions therein involved."[18] During this meeting the name of the committee was changed from Committee on National Health Council to the Section on State Medicine and Public Hygiene.[19]

Interestingly enough, Dr. Logan of California was named president of the Association for the coming year. In his presidential address in 1873, Dr. Logan urged once again the establishment of state boards of health in all states, together with a central sanitary bureau to be established by the federal government.[20]

In the meantime the medical profession of Michigan became increasingly concerned in the movement for a state board of health in this state. Following the defeat of the original bill for the creation of a state board of health, physicians and others interested in the project wrote many editorials and short articles stressing its need in Michigan.[21] The dangers of illuminating oils and poisonous wallpapers were pointed out as reasons justifying the creation of such a board.[22] Editorials such as the following made their appearance in the medical journals of the state:

**State Board of Health**

We have watched with great interest the work performed by the Massachusetts Board of Health. The reports we, in common with other medical journals, have deemed of such value, as to quote from them for the benefit of our readers. They offer suggestions and furnish facts, not only for guidance in improving the health of the State of Massachusetts, but of other States. The work of the State Board has been nobly done, and on behalf of our common humanity, as well as of the medical profession, we gratefully tender our thanks.

But this is not enough. Other States, Virginia and Louisiana, have established State Boards of Health. Surely the State of Michigan ought not to delay longer. Receiving from others it should contribute of its knowledge to the common good.

Further, we owe it to our people as a mass, to have those competent study our people as a unit in the particular conditions by which they are surrounded. The results of these studies being brought home to the popular minds in a thousand different ways, would enable them to act, as to be more comfortable, prosperous and long lived. In this way the growth and powers of our State would rest on the safest foundation, the obedience of its citizens to the conditions under which they exist. What are these conditions? What is their bearing upon each one of us, and all together? What are the causes of epidemics, effects of locality, employments, different kinds of food, clothing, drink, air, et cetera, upon the public health?[23]

The public was also appealed to by other physicians who used every occasion to create an opinion in favor of a state board of health. Drs. Robert C. Kedzie, Homer O. Hitchcock, E. W. Jenks, A. B. Palmer, I. H. Bartholomew, and Henry B. Baker labored long and hard to attract a following for the plan.[24]

At the sixth annual meeting of the State Medical Society in 1872, Dr. H. O. Hitchcock, president of the Society, made a number of requests of the membership in the course of his presidential address. These included a request for the appointment of a committee to appeal to the governor for the creation of a state board of health, and another for an investigation of the laws of hygiene in their relation to the public schools.[25] Later in this same meeting the committee, to whom these requests were referred, submitted a report which was accompanied by the reading of a part of the address and recommendations as follows:

Resolved, That a select committee of three, of which President Hitchcock shall be chairman, be appointed to report at our next meeting, on the laws of hygiene in their relation to our public schools.

Whereas, Governments are properly instituted to secure to the people certain inalienable rights, prominent among which is life;

And Whereas, Many deaths and many forces leading to death arise from causes which individuals are powerless to avoid, but which it is believed might be removed by proper State action;

And Whereas, Memorials to this effect have been prepared and signed by numerous prominent citizens of this State, including the entire Faculty of the Medical Department of the State University, the officers of this State Medical Society, and many others prominent in our profession, as well as other citizens, and such memorials have been presented to the Governor of the State requesting recommendations, and to the Legislature at its last regular session, asking for the establishment of a State Board of Health or other action thereon;

And Whereas, Several of the County Medical Societies in this State have taken action upon this sub-

ject, recommending State action; a prominent journal —"The University Medical Journal"—has repeatedly called attention to its importance; and the American Medical Association has considered the subject of such importance as to appoint a committee to memorialize the Legislature of every State in the Union upon this subject, praying them to establish "State Boards of Health;"

And Whereas, The Governor of this State has not yet made any recommendations, and the Late Senate refused to pass a bill which had been approved by a large number of intelligent men familiar with the subject, and who had memorialized the Legislature as aforesaid; therefore

Resolved, That we should be false to our high calling as physicians, while knowing the great number of unnecessary deaths, if we did nothing towards warning the people of their danger, and informing them of the possibility of preventing such mortality, or towards pointing out proper methods of prevention; that it is and is hereby declared to be the duty of every member of this Society to continue to do all in his power to aid in securing State action toward preventing unnecessary deaths and sickness among the citizens of this State, from removable causes.

Resolved, That believing this subject of life and death of paramount importance to the people, and recognizing the power of the combined influence of the physicians of this State, when acting together with no selfish interest, and only for the promotion of human welfare, we urge upon the officers of the State, our legislature, and all who have the public well-being at heart, to use all of their influence both as citizens and officers of government, to take such action as shall secure to as great a number as possible the conditions which render life possible and desirable.

Resolved, That a Committee of three be appointed by the Chair to personally see the Governor of the State and urge upon him the importance of bringing the subject of State Medicine to the attention of the next Legislature, and that said committee be instructed to take such other action by memorializing the Legislature, or otherwise, as shall tend to secure the enactment of proper laws for diminishing sickness and mortality within our State.[26]

The report of the committee was accepted and adopted by the Society.[27] To the Committee on School Hygiene were named Dr. Hitchcock, Chairman, Professor R. C. Kedzie, Dr. J. J. Noyes, and Dr. Theo. McGraw. This committee made reports the following year which attracted wide attention. Newspaper publicity given them, it is said, did much to interest the laity in the need for sanitary reform.[28] The other committee named to wait on the governor consisted of Doctors H. O. Hitchcock of Kalamazoo, George R. Johnson of Grand Rapids, and Robert C. Kedzie of Lansing.[29]

Both Governor Henry P. Baldwin and Governor John J. Bagley were appealed to by the committee to make favorable recommendations in their messages to the legislature for the creation of a State Board of Health.[30] In consequence of these appeals, both governors devoted a part of their addresses to this subject. Said Governor Baldwin:

Your attention is respectfully directed to the fourth annual report of the Secretary of State, relative to births, marriages, and deaths. This report has been prepared with great care, and is a work of much interest. It has been suggested by those who have given this subject much thought and attention that the organization of a State Board of Health would greatly conduce to the general welfare of the commonwealth by so utilizing these statistics as to show their bearing upon the physical, moral, and mental condition of the people.

The expense of such a Board need not materially increase the cost of this work as it now occupies the time of an additional clerk in the office of the Secretary of State, and the same duties would be performed by the Secretary of the Board, who should be its only salaried officer. While the expense would be small, great good might be accomplished in the way of sanitary reform. This subject is entitled to your careful consideration.[31]

On the same occasion, in his initial address as Governor of Michigan, John J. Bagley declared:

The establishment of a State Board of Health is urged upon your consideration by the State Medical Society, and by many thoughtful persons who have given the subject careful study. That it is the duty of the State to aid in protecting and preserving the lives of its citizens, requires no argument. We build and maintain asylums for this end. We regulate wtih minute detail the running of railroads, that life may be made safe and secure thereon. We forbid the sale of adulterated food, medicines, oils, etc., all showing that the State recognizes its duty in this matter. An active working State Board of Health, not overloaded with theories, composed of practical sensible men, would doubtless be of great service in preventing disease, preserving life, and diffusing among the people a more general knowledge of the laws of health.

This subject is attracting the notice of governments and individuals throughout the civilized world, and is worthy of your careful attention.[32]

### Second Bill Introduced into Legislature

At the same time that these efforts were made by the State Medical Society's committee, one of their number, Dr. I. H. Bartholomew, carried the fight for a State Board of Health directly to the legislature. According to MacClure, Dr.

Bartholomew ran for the legislature "to further the proposed establishment of the State Board of Health."[33] One of his first acts in the legislature was to offer a resolution requesting a standing committee on public health[34]—which was granted. To this committee was referred that portion of Governor Baldwin's and Bagley's messages that dealt with vital statistics and public health.[35] On February 6, 1875, the committee reported the initial bill for the appointment of a superintendent of vital statistics and the establishment of a State Board of Health.[36] The bill as presented differed from the one introduced previously in that it did not dictate to the governor who should be appointed members of the board. Known as House Bill No. 81, it was next referred to the committee of the whole.[37]

This committee added a few amendments. Later when it was returned to the House of Representatives, other amendments were proposed.[38] One member of this body moved that the secretary of the proposed board be "a physician of the Homeopathic School." Another moved that the board be made to consist of equal numbers of physicians from Homeopathic and Allopathic schools.[39] One member of the Senate was most persistent in his efforts to have the proposed act provide that the state board of health be a court of appeals or a court of final action for the abatement of nuisances in the state. The effort to keep the latter amendment out of the act caused considerable opposition to arise.[40] Fortunately, none of these contemplated amendments received sufficient support to alter the nature of the original bill.[41] In the Senate the bill fared much better, receiving a two-thirds vote of all the Senators.[42] On the return of the bill to the House of Representatives, it was read a third time, and on February 20, 1873, a vote was taken. Fifty-three legislators voted in favor of the act, and twenty-seven opposed it. Following the vote Dr. Bartholomew moved that the bill be ordered to take immediate effect but failed to receive sufficient support for his motion.[43]

On April 13, 1873, Governor Bagley signed the bill[44] which now became Act No. 81, Laws of 1873 (An Act to establish a State Board of Health to provide for the appointment of a Superintendent of Vital Statistics, and to assign certain duties to Local Boards of Health). From available accounts it is learned that the law did not take effect until July 30, 1873.[45]

Members of the legislature other than Dr. Bartholomew, whose efforts in behalf of this act resulted finally in its passage, included Senator H. H. Wheeler, who had charge of the bill in the Senate, Senator J. Webster Childs of Ypsilanti, and the Hon. L. D. Watkins of Manchester.[46] In addition to these gentlemen, the following legislators also assisted in the work of getting the measure adopted: Dr. Manly Miles, Stephen D. Bingham, and Benjamin B. Baker of Lansing; Dr. A. F. Whelan of Hillsdale; Dr. S. S. French of Battle Creek; and Dr. E. J. Bonine of Niles.[47]

At the time that the State Board of Health was established, there were three other state boards of health in existence; namely, those of Massachusetts, established in 1869; California, established in 1870; and Virginia, established in 1872.[48] According to Garrison, a state board of health had also been established in Louisiana as early as 1853.[49]

### First Meeting of the State Board of Health

"Gentlemen: In accordance with the request of the Governor I have asked you to convene at this time, in order that, at the earliest possible day, the Michigan State Board of Health might be organized and ready for its work.

"I trust it may not be considered impertinent for me to suggest an outline of the work that seems to me to have been laid upon us.

"For years some of us have been laboring earnestly for the establishment of such a Board in this State. The arguments for its establishment were many and weighty, and the words free and earnest with which we urged it. As it is far easier for most people to show that something ought to be done, than definitely to point out what that something is; to lay burdens upon other's shoulders than to assume them themselves, so we found real pleasure in urging the preparation of a burden for somebody's shoulders, not stopping to think "what if it should be let down upon our own?" And I imagine that each one of us received a little shock one day and, for a time at least, an abatement of his zeal in the cause of Preventive Medicine, when our good Governor gently laid upon us his hand and the burden of making a State Board of Health popular with, because useful to, the people of the State.

Here, then, we are today, face to face with the questions, "What is the work to be done by this State Board of Health?" and "How are we to do it?"

* * * * * * * * *

Thus, at a low estimate, there might be saved to this State, if the people were properly instructed in and would carefully observe the principles of hygiene, 2,000 lives that are now annually sacrificed by ignorance and neglect . . .

Here, then, is the work for this board to do: to edu-

cate the people in respect to the nature and causation of diseases, and the means for their prevention; to suggest appropriate legislation for compelling, when necessary, the use of those means and to present arguments for such education and legislation, fortified and made cogent by facts—2,311 authenticated cases of disease and death directly traceable to ignorance, neglect or disobedience of the law of hygiene; and to make it possible by this work that many if not all of the lives and much of the treasure now needlessly lost to the state may be saved.

I bespeak from every member of this board, harmonious, earnest, faithful, though unpaid, labor in this cause, and I am sure there will follow victories of grander proportions and of broader and more vital interests to mankind than any that have been or may be achieved in medicine as a strictly healing art.

In the words of one who, I venture to hope, will be chosen secretary of this Board, "Grander victories, of greater importance to the people, remain to be achieved than any which have heretofore resulted from warlike methods." "To the peaceful hero who shall call forth and so marshal facts and generalize the scattered forces of knowledge as to lead to a victory over any one of the prominent causes of death which now annually destroy our citizens by hundreds of thousands, humanity may well accord a higher praise than to the most successful of warlike generals."

Gentlemen, I welcome you to this work, grand, self-sacrificing, and sublime."[50]

Thus did Dr. H. O. Hitchcock, as senior member and temporary chairman, introduce the work of the State Board of Health to its first members. Present at this initial meeting besides Dr. Hitchcock were Dr. Robert C. Kedzie, Rev. J. S. Goodman, and Dr. Z. E. Bliss.[51]

Business transacted at this initial meeting consisted of the election of officers and the adoption of by-laws and rules of order for the government of the Board.[52] Dr. Hitchcock was honored by being elected the first president, and his very close friend, Dr. Henry B. Baker, was made secretary.[53] And "with mingled feelings of hope and fear" the Board entered upon its work.[54]

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# The Mediastinal Glands in Undulant Fever

By William S. Martin, M.D.
Ludington, Michigan

▪ THIS article is not intended to be a comprehensive discussion of undulant fever, but is presented solely in the hope that it will add something worthwhile to our all too meager knowledge of an old disease steadily assuming new and greater significance.

Undulant fever has been, and still is to a great extent, something we began to think about only after all other possibilities have been exhausted. Insufficient knowledge of the disease, vague and protean nature of the symptoms and lack of constancy of a positive serology appear to be the main reasons for this.

The lack of complete understanding is well demonstrated by the fact that while practically all text books and journal articles mention the frequency of a dry, irritative, nonproductive cough, I have never encountered any attempt to explain the causative pathology.

I have observed six cases of undulant fever with this cough; in all six the x-ray has shown moderate and marked enlargement of the mediastinal nodes. In three of these cases the agglutination was never positive; but in the other three it was conclusively so. Only the latter three reports are given here; though, clinically, there is no doubt in my mind as to the others being true undulant fever.

*Case 1.*—S. M., aged thirty-three. Agglutination positive, February, 1939. Film No. 3832, taken March 14, 1939.

"Films of the chest show the costo-phrenic angles and diaphragm are clear. The heart and superior mediastinum are within normal limits. Both lungs show a marked enlargement of the hilum shadows with some increase in parenchymal markings radiating outward from them. The apices and periphery of the lungs are clear."

Film No. 3870, taken April 4, 1939

"Film of the chest shows a marked glandular enlargement at both hila. On the right they are fairly smooth in contour. The left side shows, in the flat film, what appears to be some parenchymal infiltrations. The apices and periphery of the lungs are clear. Previous films are not in our file so comparison cannot be made."

*Case 2.*—C. D., aged twenty-one. Agglutination positive, December, 1941. Film No. 5104, taken Feb. 11, 1942.

"Films of the chest show an increase in the glandular enlargement at the right hilum and an increase in the fluid at the right costophrenic angles, since the previous examination of January 21, 1941. There is no evidence of lung pathology."

Impression: "Fluid right pleural space. Enlarging glands at right hilum."

(Author's note: Fluid probably due to intrathoracic pressure; as no other explanation was found.)

*Case 3.*—G. D., aged thirty-one. Agglutination positive May, 1941. Film No. 6116, taken April 13, 1941.

"Films of the chest show a symmetrical chest, clear costophrenic angles and smooth diaphragm. Heart and mediastinum are within normal limits. Marked glandular enlargement at both hila. No evidence of parenchymal involvement."

Two of these patients were running a low grade fever at the time of the x-ray examinations, though not acutely ill. The third was febrile and acutely ill. All had a peripheral lymphadenitis but no palpable spleen. All were ambulatory.

One later had deep roentgenography without marked diminution in the size of the chest glands, and temperature remained unchanged. Chest pain of "heavy, dull, aching" character was complained of by this patient, and the chest findings remain unchanged after three years. The other two had no symptoms referable to the chest except cough.

### Summary

1. Three cases of proved undulant fever with mediastinal adenitis, and dry, non-productive cough are cited.

2. A theory for the explanation of this cough is presented.

3. It is hoped that further investigation will reveal that this mediastinal adenitis is of sufficiently frequent occurrence to be of diagnostic aid, especially in the absence of a positive agglutination.

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# Acute Laryngotracheobronchitis*

**By Walter P. Work, M.D.**
**San Francisco, California**

WALTER P. WORK, M.D.
*A.B., University of Michigan, 1931; M.D., University of Michigan, 1935; Member, Pacific Coast Oto-ophthalmological Society; Member, American Academy of Ophthalmology and Otolaryngology; Diplomate, American Board of Otolaryngology; Assistant Visiting Otolaryngologist, San Francisco City and County Hospital.*

■ DURING the past two decades increasing attention has been brought to the disease, acute laryngotracheobronchitis, and it has come to be known as one of the most capricious diseases confronting the medical profession. To date, even in the most capable hands the death rate is still appalling. Many forms have been described and the etiology has varied according to different investigators. It is agreed among those who have had anything to do with this condition that the most perplexing type is that form in which thick, tenacious, gummy, glue-like exudations are formed either within all or within part of the laryngotracheobronchial tree. That a milder

*Experiences at the University Hospital, University of Michigan, Ann Arbor, Michigan.

form of the disease exists, is also apparent, for it has been our experience that tracheotomy has been sufficient operative intervention to procure recovery.

From statistics in the literature it will be seen that a patient with such a condition has an 80 per cent to 20 per cent chance for recovery. The most encouraging reports are those of Brenneman et al.[1] who list a mortality rate of 25 per cent in twelve cases during 1936, and more recently, Galloway[3] who lists a 20 per cent mortality rate in ten cases. The present study was undertaken to determine experiences with this disease during the past several years at the University of Michigan Hospital.

After reviewing several hundred records at the University Hospital from the year 1925 to the present, it was found that the disease was neither diagnosed nor treated as it is now until the year 1930. Undoubtedly the disease did occur but went unrecognized and many deaths attributed to some other cause may have been due to this condition. On the other hand, the diagnosis of acute laryngotracheobronchitis was made many more times than was justified. Many adults were diagnosed as having this condition when in reality they had no more than acute laryngitis, tracheitis, pharyngitis or even bronchial pneumonia. The records revealed further that the diagnosis of this disease in children was also incorrect on many different occasions. Confusion with croup was noted more frequently than with any other condition, but as in the adult group, the confusion also included the diseases listed above. In fact, in the elaborate coding system at the University Hospital this disease has had no place of its own and has been coded under the various headings of laryngitis, tracheitis, bronchitis, tracheotomy, and under foreign body. Incorrect diagnoses prove conclusively that the true nature of the disease has not yet been fully appreciated. By careful exclusion and inclusion the diagnosis of acute laryngotracheobronchitis was justified in a group of thirty cases; twenty-eight of these cases were treated at the University Hospital and two were treated at St. Joseph's Mercy Hospital. Although all the patients of this group did not form exudations that required mechanical removal, they required surgical intervention of one sort or another or died before such aid could be administered. I feel that in the face of many incorrect diagnoses, these thirty cases may in all respects be the true disease entity under discussion. Twenty of this group of patients died, making a mortality rate of 67 per cent.

### Analysis of Cases and Their Treatment

*Sex Incidence.*—Males appear to be affected approximately twice as often as females, for in this group of thirty cases there were twenty-one males and nine females.

*Age Incidence.*—Twenty-two of the patients were two years of age or under and of the remaining eight patients the eldest of the group was seven years. These figures again emphasize the point often stressed; namely, that the great majority of these cases occurs in the very young patient.

*Relation of the Disease to Foreign Body.*—That this disease occurs following the aspiration of a vegetal foreign body is well known, and it is often manifested here in its most severe form. Considering the bean as a foreign body in the bronchus, Clerf[2] states:

> "Atelectasis was a common anatomical finding and was associated with severe laryngotracheobronchitis. . . . The incidence of tracheotomy and the mortality rate were higher in these than any other group."

Regarding dyspnea, he points out:

> "It was observed most frequently in cases of vegetal foreign bodies. Many of these substances set up a septic laryngotracheobronchitis in young children who constitute a majority of the vegetal foreign body cases. Tracheotomy was performed for the relief of obstructive dyspnea and to aid in ridding the tracheobronchial tree of excessive secretions in fifty-two cases of foreign bodies in the air passages. . . . Forty-three of the fifty-two tracheotomies were performed in cases of vegetal foreign bodies."

In our series of thirty cases seven patients developed acute laryngotracheobronchitis following the removal of a vegetal foreign body. Several of these patients had had bronchoscopies and attempted removal of the foreign body before being sent to the University Hospital. After the successful removal of the foreign body, all required tracheotomy for the relief of obstructive dyspnea and for the removal of excessive exudations from the trachea and the bronchi. In spite of all therapeutic measures, six of these patients

died, making an unusually high mortality rate of 86 per cent.

*Tracheotomy, Intubation and Low Bronchoscopies.*—The disease developed in twenty-three cases that were not associated with a vegetal foreign body, and twenty of these (87 per cent) were tracheotamatized, as contrasted to 100 per cent of the foreign body cases. Of the remaining three, one died before such a procedure could be carried out and the other two were intubated. Both of these patients died shortly after coughing their laryngeal tubes out, and postmortem examination proved that the method of choice of treatment should have been tracheotomy with subsequent removal of gummy exudations. It is interesting to note that death occurred at the end of six days in one and at the end of two days in the other. No doubt valuable procedures could have been carried out in this interval.

In the group of twenty patients requiring tracheotomy, it is important to differentiate the mortality rate in those necessitating low bronchoscopy because of crust formation and those who did not exhibit this condition. This would possibly clarify the hypothesis that crust formation alone is a suitable criterion by which to judge the severity of the disease. Low bronchoscopies were required on repeated occasions for removal of crusts in six patients and of this group, three died, a mortality rate of 50 per cent. Low bronchoscopies were not done in the remaining fourteen patients because it was felt that there was no clinical evidence of crusts, yet 8 of this group died, a mortality rate of 57 per cent. Two of the youngest patients, one seven and the other one eight months, fell in this latter group. Following tracheotomy both became so desperately ill that it was felt that low bronchoscopy should be carried out even though the air passages seemed clinically free. Both died while the bronchoscope was being passed. No large obstructing crusts were found in either case. However, a thin glistening exudate covered the trachea and extended down into the bronchial tree as far as could be seen through the bronchoscope. The question arises whether bronchoscopy was carried out too late in these two cases, and there is, of course, no way of answering this question. Large obstructing crusts, partial casts of the trachea and bronchi are readily and speedily removed through the bronchoscope but it is the very thin tenacious exudations that cling not only to the larger structures of the tracheal bronchial tree, but the smaller structures as well, often involving the lung itself that cause the difficulty in removal. It is this type of exudate in all probability that accounted for a mortality of 57 per cent in those patients where low bronchoscopies were not carried out.

### Significant Case Reports

*Case 1.*—C. S., aged six months, negro, male, with upper respiratory infection and twenty-four hour history of laryngeal obstruction, entered University Hospital for observation. After conservative treatment for thirty hours, tracheotomy was performed. Approximately three hours after this procedure, the patient coughed the tracheal tube out. This was immediately replaced but the patient's condition from then on was precarious and death occurred.

*Comment.*—At post-mortem examination the diagnosis of acute laryngotracheobronchitis was confirmed but in addition, bilateral tension pneumothorax were found. There was a marked emphysema of the areolar tissue of the anterior mediastinum, the bullæ being very large and their general appearance not unlike that of multiloculated soap bubbles. The walls of these bullæ were extremely thin and it is reasonable to assume rupture of some of these through the parietal pleuræ with the production of the tension pneumothorax bilaterally. No break in the surface of the lungs was noted. As Richards[4] has pointed out, it is not necessary to find a macroscopic break in the lung surface to explain the formation of pneumothorax, but on the other hand it may occur following the rupture of a microscopic bleb on the lung surface with the escape of air into the pleural cavity. It is logical to assume that such a process did not occur in this patient, for the mediastinal emphysema was so great in amount that it was assumed to be the direct result of not replacing the tracheotomy tube into the trachea properly when it was coughed out and that the patient simply forced air into the anterior mediastinum to produce the emphysema which undoubtedly was responsible for the tension pneumothorax and the subsequent early death. Clinically the pneumothorax was entirely overlooked.

*Case 2.*—J. C., white, female, aged eighteen months, aspirated a pecan nutmeat five days before admission

to the hospital. Twenty-four hours before admission a bronchoscopy was done elsewhere without success. The foreign body was removed successfully the morning after admission and tracheotomy was done that same evening because of laryngeal obstruction. During the next six days nineteen low bronchoscopies were done to remove crust formations. At the last bronchoscopy the patient died suddenly.

*Comment.*—This patient was evidently well on the road to recovery for the bronchoscopist pointed out that the tracheal and bronchial mucosa were approaching the normal in appearance and were practically free from exudation. The patient's clinical course was deemed entirely satisfactory until death occurred. At the time of death an attempt was made to inject adrenalin intracardially but instead of obtaining blood, 2 to 3 c.c. of a clear, straw-colored fluid were obtained. Unfortunately the fluid was not cultured or examined by the microscope. Postmortem examination was not permitted. Suffice it to say that a pleural effusion was overlooked while the patient was alive. Both of these cases have been presented to emphasize the necessity of recognizing clinically the complications that arise during the course of this disease and to institute proper therapy.

## Medical Treatment

Recent literature has contained many references pertaining to supportive measures that are demanded in the treatment of acute laryngotracheobronchitis and to avoid repetition, those points in the therapy that are so often stressed will not be discussed.

Since 1937, we have used sulfanilamide and its allied compounds in the treatment of this disease. The blood level of the drug was considered adequate when it was maintained between 8 to 12 mg. per 100 c.c. of blood. In those patients in which these compounds, particularly sulfanilamide, were not tolerated by mouth, they were given intravenously. In addition to maintaining the chemotherapy we were also in this way able to regulate more readily the fluid intake. All the patients did not receive full therapeutic doses of the drugs but when this group of patients was compared with the group that did receive adequate doses there was little or no noticeable difference in the clinical course of the disease.

The coincidental dangers associated with low bronchoscopies are again stressed, because as stated previously, two patients died while the bronchoscope was in place. As pointed out by Galloway[3] lavage with subsequent suction is probably a factor in decreasing the mortality rate in his series of cases. Many solvents have been recommended for this purpose and the one found by us to be the most efficacious is distilled water. After the instillation of 4 to 6 c.c. of water into the tracheotomy tube the patient is turned from side to side and is then suctioned, first being careful to pinch off the soft rubber suction tubing until it is well down into the trachea or bronchi to avoid trauma to the already diseased mucosa. This procedure is repeated as often as is indicated and may have to be supplemented by low bronchoscopies. An additional factor of much importance is supersaturation of the atmosphere with moisture and preferably a room set aside for this purpose is ideal as compared with the croup or steam tent. A coincidental rise of atmospheric temperature noted in the croup tent tends to make an already desperately ill patient more uncomfortable. By the employment of the newer humidifying units the ideal saturation and temperature may be obtained.

## Conclusions

The disease entity, acute laryngotracheobronchitis, is still frequently misunderstood and misinterpreted.

Acute laryngotracheobronchitis associated with vegetal foreign body is probably the most vicious form of the disease and presages the highest mortality.

Gross crust formation cannot be used as a sole criterion to judge the clinical course and seriousness of this disease. Thin, tenacious, adherent macroscopic and microscopic exudations, even though the air passages appear patent, if not recognized and treated speedily and properly, will continue to cause the death of an appalling number of patients.

Complications arising in the course of the disease are readily overlooked if not kept constantly in mind.

It is doubtful that sulfanilamide and its related compounds have appreciably affected the prognosis of this disease.

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# Trigerminal Teratoma of the Sacrum

By Nevin Huene, M.D.
Traverse City, Michigan

NEVIN HUENE, M.D.
*M.D.. Rush Medical College, 1925. Member of the Staff of James Decker Munson Hospital, Traverse City. Member, Michigan State Medical Society.*

THE elder Senn, in his work on "Tumors," defines a teratoma as "a tumor composed of various tissues, organs, or systems of organs which do not normally exist at the place where the tumor grows." Teratomata contain tissues or higher structures derived from two or all of the blastodermic layers. The highest type of a teratoma is a fetus *in fetu.* In the simpler varieties the tumor is composed of heterotopic tissue, such as bone, teeth, skin, mucous membrane, et cetera. All teratoid tumors are congenital, that is the tumor either exists at the time of birth or the patient is born with the essential tumor matrix. Any human structure may be found in a teratoma. They are divided into external and internal types. To the external belong the parasitic fetus and the suppressed fetus. A parasitic fetus is the result of fusion of two embryos, one having gone on to complete development, and the other developing partially.

A suppressed fetus is an irregular mass attached to the posterior surface of the sacrum, to the chest, or to the abdomen. It contains a conglomeration of tissues and fragments of organs, for instance, bone, cartilage, lung tissue, kidney tissue, a piece of intestine or a portion of liver. The internal teratoma may be found within the cranium, chest, abdomen, or pelvis.

## Case Report

*History.*—Mrs. F. L., aged thirty-one years, first came to my office September 27, 1941, for prenatal care. Her past obstetrical history revealed one miscarriage of three and one-half months, three children living and well, aged eight years, five years and two and one-half years, all normal full-term babies. Last normal period was July 6, 1941. Periods previously were all regular every twenty-eight days, lasting five to six days. Expected date of delivery was April 15, 1942.

Fig. 1. Appearance of child before operation.

*Examination.*—Blood pressure was 105/68, which was the average over the last seven months of pregnancy. Weight was 133 pounds. Weight on April 14, 1942, was 148 pounds, an average gain of 15 pounds throughout the seven months. Urinalysis was essentially negative. Blood Kahn test was negative.

*Clinical Course.*—In February, 1942, the patient developed a moderate edema of the lower body but urine and blood pressure did not vary from normal. Salt was restricted, elimination was increased and the patient advised to stay in bed. On this date examination of the abdomen revealed a large mass in the left upper quadrant with fetal heart tones to the left and below the umbilicus. Rectal examination revealed a head in the pelvis. A diagnostic x-ray examination was advised but was refused by the patient so a diagnosis of multiple pregnancy was made. There was no family history of multiple pregnancy.

On April 1, 1942, the patient went to the hospital with uterine contractions every five minutes but after remaining there two hours the pains disappeared. She remained in the hospital for two days and looked and felt much better for the rest. The edema disappeared and she was discharged from the hospital.

On April 15, 1942, the patient returned to the hospital with very strong labor pains and was prepared

for delivery. The membranes ruptured spontaneously and the head showed in the next few contractions in a L.O.A. position. While attempting delivery there appeared to be something locking the fetus, so the arms were delivered and the baby forcibly extracted sufficiently to clamp and cut the cord. The condition of the baby was excellent at all times. The mother was anesthetized and a hand passed up along the back of the baby. Near the sacrum of the baby could be felt a large firm tumor mass that was impinging above the brim of the pelvis. Very firm pressure was placed on the mass through the abdomen. With that pressure and strong extraction on the baby, a live baby with a large sacral tumor was delivered. Two days later the baby was sent to the University of Michigan where Dr. Edgar A. Kahn of the Department of Surgery removed the entire mass, which was partially cystic. It was dissected free from the underlying structures. The entire rectum and sigmoid colon were exposed in the removal of this tumor. By undermining the skin and transposing muscles an excellent closure was obtained. The child has done very well except for some breaking down of the wound. It is now entirely healed.

*Pathological Report* (Dr. Carl V. Weller).—This is a trigerminal teratoma which contains many cystic spaces lined by columnar epithelium, glial tissue, and esophagus epithelium

*Physical Examination of Baby.*—Temperature 98.6; weight 8 pounds, ¾ ounces; length 19½ inches; head circumference, 13⅛ inches; chest 13 inches. The child was a fairly well developed baby of good nutrition.

Protruding from the sacral region was a large cystic mass about one and one-half to two times the size of the baby's head. Over the surface of the tumor ran several large veins. The mass did not pulsate. The anus opened just anterior to the mass and the rectal sphincter was normal. After removal of the tumor the baby weighed 5 pounds, 13 ounces. Weight of tumor was about 2 pounds.

### Summary

A case of a baby with an extremely large trigerminal teratoma of the sacrum, which was removed surgically with complete recovery of the mother and baby, is presented.

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"We know that sometimes a price must be paid for civilization and peace; and when madness and passion and the desertion of all the standards of decency and good faith bring a great agony to the world, it is sometimes the manifest duty and the high privilege of a free people, by the power of sacrifice and courage, to transmute that agony into a new salvation. In this war, we have no illusions about the strength of the enemy or the length of the war. We know that wars cannot be won by abstract nouns and that tyrants cannot be hanged by a string of adjectives. We have freely made our choice and we propose to abide by the issue with all free men until the end."—*California and Western Medicine,* (Sept.) 1942.

# Rupture of the Heart

## Report of Two Cases and Post Mortem Findings

V. W. Jensen, A.B., M.S., M.D.
Shelby, Michigan

V. W. Jensen, *A.B., M.S., M.D.*
*Illinois College, '15, A.B.; Univ. of Chicago, '17, M.S., Rush Medical Col., '19, M.D. Fellow A.M.A. Sec., Oceana County Medical Society. Member Michigan State Medical Society.*

Report of two case histories of "Rupture of the Heart," with diverse symptoms and signs, in third and fifth decades of life, one being of congenital chest deformity origin; the other preceded by years of hypertension, simulating gall-bladder disease. Initial symptoms of rupture of heart simulate violent thoracic as well as abdominal conditions. If patient survives for a few days, bizarre signs of intrathoracic conditions, fluid masses and occasionally intra-abdominal signs.

■ Rupture or perforation of the heart is a term used interchangeably as descriptive of interruption of continuity of any one of the several portions of the heart's structure, and includes internal as well as external causes. For the sake of clarity and delimitation, we shall use the term rupture as meaning disruption of the continuity of the heart's structure as due to internal factors only, reserving the term perforation for instances of penetration by external agents.

The earliest reported instance of rupture of the heart is by Harvey in 1649,[1] and Krumbhaar and Crowell[3] in their survey of the literature from 1872 to 1928 collected 710 cases. The incidence of rupture of the heart in post-mortem records of large hospitals is an average of 23/12,000[3] which may be divided as occurring in the several portions of the heart as follows:

| | |
|---|---|
| Left ventricle | 79 % |
| Right ventricle | 10.7% |
| Miscellaneous | 3.2% |
| Left auricle | 1.8% |
| Right auricle | 5.3% |

The age incidence[2] is distributed as follows:

| | |
|---|---|
| 80 | 7.6% |
| 70 | 32.9% |
| 60 | 34.2% |
| 50 | 12.9% |
| 40 | 7 % |
| 30 | 2.4% |
| 20 | 2.4% |
| 10 | 1.2% |
| 1-10 | 1.2% |

Obviously the affliction is one of the aged.

The sex distribution[3] is variously given, the male incidence being 56.1 per cent to female, 43.9 per cent.

The gross pathological condition is essentially characterized by arteriosclerosis and hemopericardium, the latter of which is absent in a few and not mentioned in some case reports. Blood and serosanguineous fluid are in the pericardium as well as in the chest cavity. The majority make no mention of the coronary arteries at all and a few find them sclerosed.

Microscopic examination has been done only in a few cases. Interstitial hemorrhage and obliterative endarteritis of the nutrient arteries, and in some cases myocardial infarct and myocardial abscesses have been reported. In the upper age group, coronary thrombosis and sclerotic coronary occlusion is commonly found.

The exciting causes given[3] are exertion, such as rowing, straining at stool, lifting and shaving, intemperance in food and liquor, extreme obesity, bacterial endocarditis, and cardiac lesions including abscess, metastasis, tuberculosis and lues.

The onset is sudden, in some with a cry or groan, severe pain located variously in upper half of abdomen,[5] or in chest, radiating into left or right arm or both; or into the left shoulder blade or neck. Nausea or vomiting, or both, may be present.

The patient usually presents himself with pinched facies, cold clammy skin, with dyspnea, rapid weak pulse, which may be irregular and unequal. The heart sounds may be normal in character, feeble or distant. As fluid in pericardium and chest accumulates, the physical signs merge into those of pressure. Signs of pressure alter the clinical picture as in the case reported here, being secondary symptoms. The initial symptoms in any case of rupture of the heart are in 15 out of 18 cases those of coronary occlusion. The laboratory findings reported are meager, the leukocyte count varies from normal to 27,000.

The electrocardiograph reading, in the few surviving long enough, ten out of forty, is indicative of severe internal cardiac disturbance.[4]

Differential diagnosis in a youthful patient may have to be made between congenital potency, ruptured congenital aneurism of pars membranacea septi, and would rest on the youth of the patient, absence of a history of endocarditis, and of severe symptoms of acute cardiac collapse. In the adult it would need to be differentiated from such acute upper abdominal conditions as: perforation of gastro-intestinal tract; perforation of gall bladder, acute pancreatitis and intussusception of upper portion of jejunum.

The prognosis is very unfavorable, as more than 73 per cent die instantly and a bare 3 per cent live for five to eighteen days.

The two cases reported here are typical findings of ruptured right auricle:

Mr. L. S. B., American, aged thirty-two, single, laborer. This patient fainted while loading a truck on October 10. He was taken with severe, sudden pain in the pit of his stomach and into the right shoulder blade. He did not finish the loading, but rested and returned home. During the preceding month he had been taking medicine for his stomach without relief, for a distress which came on after eating or exertion, and also because of pain under his right shoulder blade.

Past history was uneventful except as noted.

Family history shows that two brothers have similar deformities of the chest wall, but not so severe as the patient.

Physical examination revealed a well-nourished man, apparently indifferent of himself, who did not appear acutely ill, nor in distress.

The chest had a depression about 5 inches deep in the center of the sternum, forming the "spout or funnel-like depression" in the center of the chest.

In the lungs breath sounds were distant anteriorly. Posteriorly, breath sounds were coarse toward the mid-axillary line, with a few râles at the base of the left chest. Breathing was abdominal in type with a "bellows-like" action of the lateral portion of the chest. Percussion at the base of the left lung revealed a pyramidal area of dullness.

The apex beat of the heart was at the third intercostal space but not localizable. The flatness extended to the anterior axillary line. Auscultation gave indefinite heart sounds, feeble and distant with an irregular, feeble pulse of 100 per minute. Abdominal findings were negative. Reflexes of pupils were present, but the left pupil was larger than the right and larger than normal. The abdominal and patellar reflexes were present and active. Temperature was 98.6 F.

We presumed a pericardial hemorrhage to be present, and gave a poor prognosis. The patient died quietly during the night after having been up and around during the day inspecting the farm.

Post mortem examination revealed a man about thirty-two years of age, approximately 65 inches tall, weight 155 pounds, muscular with extreme funnel-type chest.

The aorta and arch were pushed to the right of the vertebral bodies. The apex of the heart was on the level of the third rib, about the costo-cartilagenous margin. The pericardium was not adherent to

the lungs and contained about 400 c.c. of blood. The heart was of normal size, in systole, and on the anterior surface of the right auricle was a punched-out opening about 3 m.m. in diameter. The cut surface of the heart was normal. The valves were intact. The opening of the coronary artery was normal, no narrowing of orifice, lining was normal. Aortic surface was smooth and glistening. The lungs were "gourd-like" in shape with the small end toward the diaphragm. Cut surfaces were normal. The chest cavity contained about 800 c.c. sero-sanguineous fluid.

Liver was normal in color, contour abnormal because of compression under the diaphragm. The gall bladder, stomach, duodenum and kidneys were normal.

*Anatomic diagnosis:* Rupture of the right auricle, hemo-pericardium, sero-sanguineous plural transudate, and extreme funnel-shaped chest, with artificial joint.

Mr. W. K., aged fifty-five, farmer, widower, died suddenly without previous medical attendance. He had complained of marked pain over the precordium which radiated into the right shoulder and into the right arm down to the elbow, accompanied by a feeling of constriction in the chest and a sensation of impending death. He wanted to walk rather than recline.

Physical examination showed a patient with an expression of marked anxiety. Blood pressure was 110/90; pulse 90, irregular, weak, poorly transmitted. The lungs showed no râles and no dullness, no fremitus. The tentative diagnosis was coronary embolism.

This patient for several years had had a blood pressure ranging from 180-200 systolic with diastolic pressure 90-100. The kidney function was normal. His symptoms were an occiptal headache and right upper abdominal distress.

Post-mortem examination revealed the pericardium filled with blood and organized clots. The right ventricle on the anterior surface showed a rent about 3 cm. long. The pleural cavity contained 900 c.c. serosanginous fluid. Gross pathology of the abdominal organs was negative. A portion of the right ventricle was sent to Dr. E. W. Lange of Hackley Hospital, Muskegon, Michigan, who reported as follows:

"Specimen consists of a piece of heart muscle measuring 4 x 6 cm. The outer surface is in part covered with a thick layer of adipose tissue and in this is a prominent, hard, tortuous coronary artery. On either side of the artery is an area of black discoloration each measuring about 3 x 1.5 cm. In one of these areas the serosa is broken and reveals a gaping rent in the myocardium. On probing, this extends through the entire thickness of the muscle and the perforation measures about 1.3 x .4 cm. It has black, roughened edges. On opening the coronary artery it is found to be hard, brittle, chalky and difficult to follow. It does not remain laid open but is inelastic and tends to retain its original shape. The lumen is small and roughened by innumerable small, grey, hard, nodular protrusions. After about 2 cm. the lumen is partially occluded by a hard, finely granular blood clot. This rapidly increases in amount and soon the entire lumen is occluded by a well-organized clot. The muscle wall measures up to 1.1 cm. in thickness. The endocardium is covered with an adherent, partially organized blood clot. In fact, at the perforation the myocardium falls apart when cut. On repeated cross sections the increase in thickness of the vessel wall and corresponding decrease in size of the lumen, and the final obliteration of the lumen are very apparent.

"Microscopically, the epicardium is thickened and shows an increase in the amount of fat tissue. In part it is infiltrated with blood which shows some fibrin formation, pigment deposit, and an inflammatory cellular infiltration. It supports a coronary artery and a coronary vein. The artery has apparently been cut near one of its branches for two cross sections of it, lying side by side are noted. This artery exhibits a marked irregular thickening of the intima, leaving a small pyramidal shaped lumen. The intima at times is broken up and retracted, leaving minute ulcerations. The artery contains some red blood cells with fibrin formation, pigment deposit, a sprinkling of white blood cells, and some pink staining colloid-like material, apparently degenerated blood clot. This clot is adherent to the intima, especially at the indentations and minute ulcerations. The internal elastic membrane has disappeared and the media is likewise irregularly thickened, due to an increase in fibrous tissue. The smooth muscle tissue is normal and in some regions appears to be reduced in amount.

The adventitia is not remarkable. The vein has a somewhat thickened, hyalinized wall, is collapsed, and contains some hemorrhagic material with much pigment deposit. Further sections of the same block taken at different levels, show the increase in thickness of the arterial wall very evident and the contents of the lumen become more colloid in character, and the remaining hemorrhagic material shows more evidence of organization. The deeper layers of the myocardium show marked edema and scarring, the latter being especially pronounced around the tiny interstitial vessels. Both the superficial and deep layers of the myocardium are markedly fragmented and exhibit a very marked diffuse hemorrhagic engorgement, so that at times the muscle tissue is actually replaced by blood. This hemorrhagic material shows some fibrin formation, much pigment deposit and a diffuse plasma cell infiltration with some polymorphonuclear leukocytes.

"Microscopically, sections taken from another block show a much larger coronary artery. The component parts of the wall of this artery cannot be identified because the entire wall is converted into a thick mass of pultaceous material from which many spicules (cholesterin) have been dissolved out, and the outer zone of this material shows a diffuse small round cell infiltration. The lumen is very small, its diameter being about 1/5 that of the thickness of the vessel wall. It contains a small cluster of red blood cells surrounded by a colloid-like material which shows definite organization and is attached to the vessel wall. The epicardium in these sections is also infiltrated with blood and the myocardium almost completely replaced by hemorrhagic material as previously described.

"*Anatomical Diagnosis:* (1) Marked coronary sclerosis; (2) coronary thrombosis (or occlusion); (3) degeneration and rupture of myocardium; (4) hemopericardium."

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# Lipomatous Replacement of the Left Gastrocnemius and Soleus Muscles Subsequent to Muscle Atrophy

## Report of a Case

By H. M. Weaver, Ph.D., and
Mark E. Maun, M.D.
Detroit, Michigan

H. M. Weaver, Ph.D.
*A.B., 1935; M.Sc., 1936; Ph.D., The Ohio State University, 1938. Department of Anatomy Wayne University College of Medicine, Detroit.*

Mark E. Maun, M.D.
*B.S., 1934; M.D., Northwestern University, 1936. Department of Pathology, Wayne University College of Medicine, Detroit. Member, Michigan State Medical Society.*

■ A. B., white, female, seventy-two years of age, was admitted for hospitalization in June, 1927, complaining of "rheumatism" in both knees and ankles. It was learned at this time that the patient had noticed some disability of the left hip five years previously, a disability soon associated with lower extremity edema and some nocturia.

Physical examination on admission revealed the patient not to be acutely ill. Blood pressure was 240/124. Examination of the heart revealed a systolic murmur at the apex and an accentuated aortic sound, extra systoles and auricular fibrillation. Examination of the extremities revealed a small ulcer on the left leg and edema of both ankles. The patient complained of some pain in both knees and ankles on passive motion. Laboratory examinations revealed a negative Kahn and normal urine, blood, and non-protein-nitrogen.

The clinical impression was that the patient had hypertensive heart disease with congestive heart failure. The patient received digitalis and the usual hospital management. She expired in October of 1935, and the body was released to the Department of Anatomy for purposes of dissection.

In the course of the dissection, during which, it must be admitted, there was no unusual effort expended to study pathological changes, the following were noted: (1) a patent foramen ovale, measuring approximately ⅜ inch in diameter; (2) fibrosed and occluded uterine tubes; (3) a possible craniotabes with marked resorption of the parietal bones; (4) a typical posterior pharyngeal diverticulum, measuring approxi-

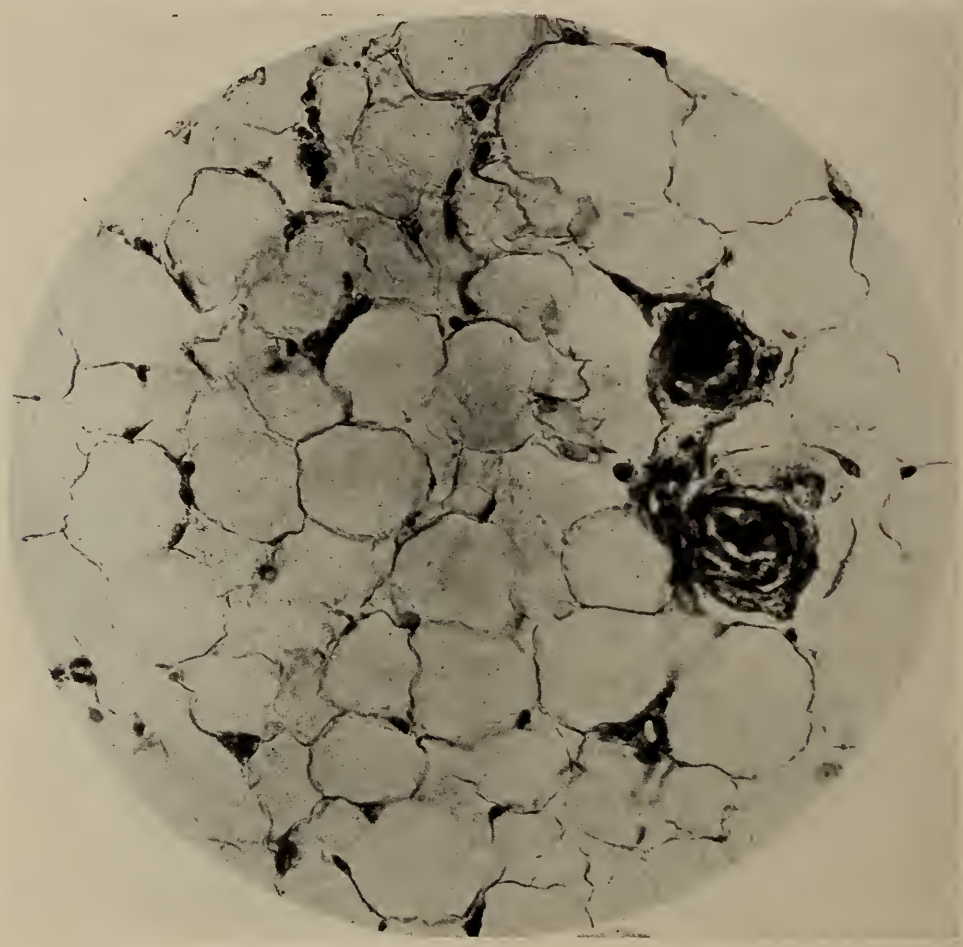

Fig. 1. ×500 diameters. Section typical of the lateral belly of the gastrocnemius and both bellies of the soleus muscles.

mately 5 centimeters in length; and (5) lipomatous replacement of the left gastrocnemius and soleus muscles subsequent to muscle atrophy.

On gross inspection the left gastrocnemius and the soleus muscles appeared essentially normal in size and shape. Both bellies of the left soleus muscle and the lateral belly of the left gastrocnemius muscle appeared to be composed entirely of fat whereas the medial belly of the left gastrocnemius appeared normal, except for a gross atrophy of approximately 25 per cent.

Microscopic examination of the involved tissues revealed a marked arteriosclerosis (Monckeberg's) of the left popliteal, posterior tibial, and perineal arteries and of the larger arteries within the muscles. (Gross examination showed this change to be quite generalized throughout the body.) The smaller intramuscular arteries and arterioles were normal. The arteriosclerotic change did not seem sufficiently advanced to interfere seriously with the nutrition of the muscles under discussion.

Sections of the medial belly of the left gastrocnemius showed a diffuse muscular atrophy with scattered areas of necrosis and a small round cell infiltration of moderate degree. Approximately 75 per cent of the normal number of muscle fibers showed atrophic changes or had been replaced by fat. Small nerve trunks within the tissue appeared perfectly normal.

Sections of both bellies of the left soleus and of the lateral belly of the left gastrocnemius consisted predominantly of adult adipose tissue. A few small and widely scattered islands of markedly atrophic muscle fibers could be seen in which there was a moderate amount of small round cell infiltration. Tendinous bands within the muscle and the tendo-calcaneous appeared normal as did small nerve trunks within the tissue.

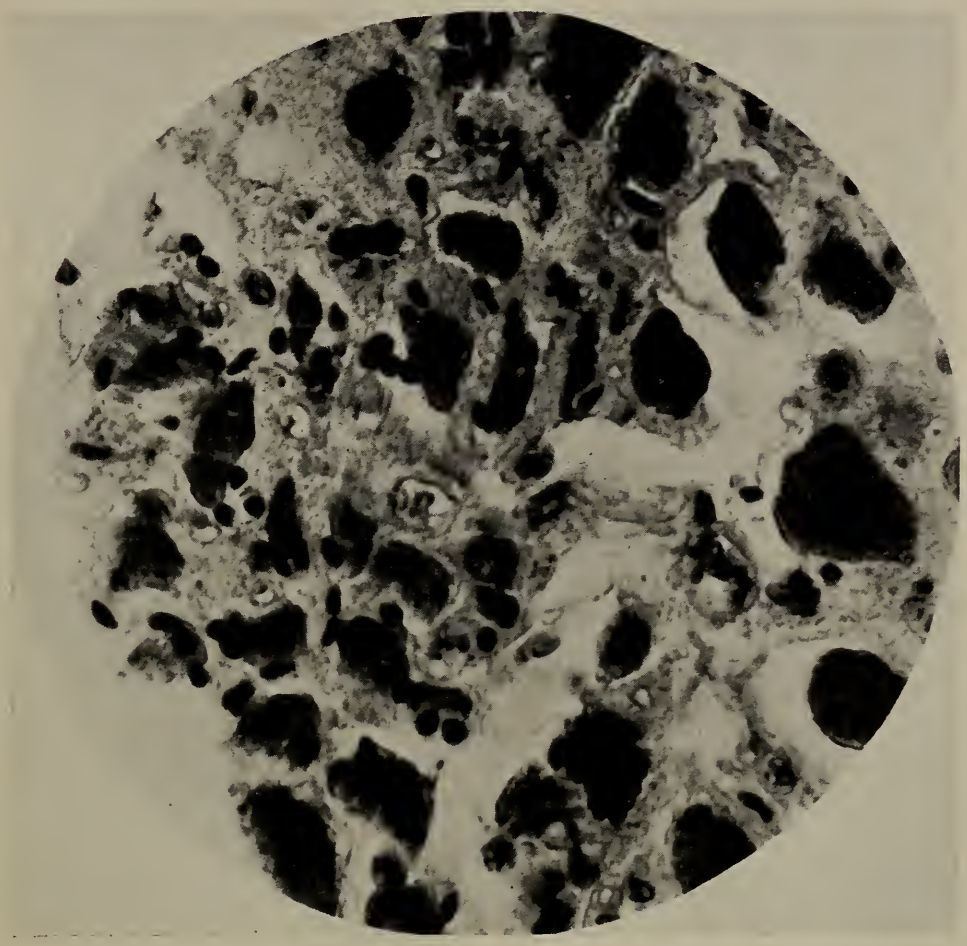

Fig. 2. ×500 diameters. Section typical of medial belly of the gastrocnemius.

Sections of the sciatic nerve appeared normal except for a slight fibrosis without appreciable nerve-fiber loss. We were unable to examine the spinal cord, but from the appearance of the sciatic nerve we should expect it to be normal.

MSMS

Effective pasteurization of all milk could wipe out *undulant fever* in our rural areas.

# ✶ EDITORIAL ✶

## CIVILIAN MEDICAL CARE

■ We received recently a poster from the Nassau County Medical Society (New York) sent to its members to be hung in their offices: "Your Doctor, the War and You." Rules were given for the adequate and essential care of the civilian population. The notice says, "Remember your doctor has only twenty-four hours a day."

Almost a year ago several of our county medical societies in Michigan appointed committees to interview the press and get some sort of message to the public asking a fair deal for the doctor who has an added load to carry since his colleagues have gone to war. In most of our cities the call for doctors for the armed forces has left too few remaining. Lt. Col. J. G. Sleven reported that there were only eight yet available for Military Service in Kent County, three in Genesee, three in Kalamazoo, four in Jackson and four in Calhoun, as of October 5th, as an example of how our counties had been stripped of doctors.

About the middle of October, the public press reported that Kalamazoo had been so stripped of doctors that only 63 remained, and about nine of them would probably eventually be called. The medical society and the city were worried for the future. At this writing there are exactly thirty-eight left in Battle Creek. We are all short handed, but we believe the problem is not insolvable. If the people will use their good common sense, and look after their ills while they are only ills, if they will care for their incipient colds, if they will see the doctor in his office when they can still get there, if they will call him early so he will not have to retrace his rounds in his house calls, if they will remember that the doctor is only human, and needs the same rest, sleep and nourishment they do, then there will be energy enough and doctors enough to care for whatever may arise. Most of the doctors left in service at home are older (only seven under fifty remain in a certain city of 50,000 population, which is typical). The older men cannot do the strenuous rounds and give the unlimited hours that the younger men can and do. That is why the Army takes the younger practitioners. These older men, if allowed to care for themselves as they care for their patients, can still do a tremendous work, but they need sleep, regular meals, with time enough to eat without undue haste and some time for relaxation. If they can have this, and it is partly the responsibility of the public, there will be doctors left for the duration to look after those who need medical care.

We have a great fear for the coronaries and hypertensions that will develop unless some reasonable consideration is given, and some responsibility assumed by the public whom we serve.

Recently Washington has been intrigued by the needs of certain newly developed industrial centers, and some older ones, that are short of doctors and apparently have no way to recruit more. Surgeon General Parran of the USPHS was credited with the suggestion that his department could send in physicians to do the work in those places. A vicious precedent would be established to which we are unalterably opposed.

Propaganda is already working to that end. November *Harpers* has an article by Michael M. Davis, "The Doctor Shortage and How to Meet It," giving the program just outlined. Mr. Davis has been director of various clinics and dispensaries and an employe of the Rosenwald Foundation.

If this program were to be adopted the future can be easily seen. The Public Health Department may now secure men through Procurement and Assignment, so why not create shortages by calling men from private practice in a community, or many communities, and send them back as Public Health men under government pay and direction to take over the practices thus made available? We are not yet ready for that, but it is a logical next step.

When any community becomes short of doctors, to the point that Public Health Service must or should supply them, wouldn't a better method be to send back to that community those doctors who had been called into military service? They could be replaced in the armed forces by the other doctors which Public Health Service would have called.

# President's Page

## Best Wishes for Christmas and the New Year

MAY every physician in the Michigan State Medical Society find time for a happy interlude at Christmas. Our members are scattered over the world this year, but we can be united in spirit while observing yuletide.

May the New Year bring to all of us: the completion of our national effort to conquer our enemies; the unity of our people at home; the ending of world-wide conflict; the restoration of our men to their normal pursuits, and the successful establishment of lasting peace.

H. H. Cummings

President, Michigan State Medical Society

## REVISED MEDICAL COURSE

■ During the past year, to help the War effort, the State Boards of Registration in Medicine have been asked by the War Department to speed up the time taken to graduate and qualify a doctor of medicine, so that more persons could be prepared for the use of the fighting forces. It was felt that advanced students could be hurried through, their courses shortened, or by some legerdemain they could be made doctors and available months earlier than the ordinary course of events would warrant.

The problem was brought to The Council and studied by that body. Vacations were shortened and school continued throughout the summer, thus making it possible to get the full thirty-six months of training in about three years. This compels the young people to attend school continuously from the finishing of preparatory school until graduation. This is too much of a strain on young constitutions, as we doctors know full well. We will find students ordinarily of A grade coming out average or mediocre. We have seen that already.

Is there not some other way? The medical man of the present generation is the most highly educated professional man within our ken. He must have a liberal college education of B grade or better or he cannot enter medical school. The medical course is four years of difficult subjects that know no limits as far as collegiate "hours" are concerned and certainly amount to an average of over twenty-five each semester. In four years that makes 200 "hours" of "postgraduate work" such as is earned in the quest for advanced degrees of M.A., M.S., Ph.D., et cetera, which degrees are given for thirty or ninety "postgraduate hours."

The average schooling for the doctorate degree in medicine takes over twice as many hours of study as are required for the highest degree offered, the Ph.D., the one so much sought by our educators, or "learned men." In all this array of study, in all this preparation for a very special field, is there not something that is superfluous, something that could be dispensed with? Is the curriculum that has been built over a period of so many years and including so much to be learned, the very best it could be? Has anyone given serious study to what could be condensed, what could be eliminated, what should be added?

There must be some improvements that would make for more efficiency, for a shortening of time, and a more attractive course. We are in a war effort, trying to rush the present students through so they may add their efforts to those of the older and experienced men, whose numbers we are finding are already lamentably short. In proportion to our population, we have more doctors of medicine than any other nation on earth but our army needs are greater than the civilian needs by ten to one,* and immeasurably more than the armies of the other nations. We have become accustomed to the best medical care there is for the least of our people, and are demanding better for our soldiers. There are not now enough medical men to go around. Only by our "home front" physicians going double and triple time can the civilian population receive necessary medical care.

If medical students are shoved forward and none prepared to take their places in a very few short years there will be a time of no additions to the medical ranks. In fact that time is "just around the corner." Some one must devote time now to this problem and a solution must be found. We are a "profession" of knowledge, of training, of ability to think, and with the trained brains that can think. This challenge has been called up by the war, and our efforts the past year to help by consenting to a telescoped course, not a shortened one, have hastened the time when this challenge must be met.

The challenge may be restated: First, have we crowded too much into too little time, without consideration of relaxation, and thus risked stunting the keenness of the high-strung medical student; secondly, is there not a way, by eliminating or shortening some less essential courses, and offering some relaxation as needed, to still produce as good or better doctors? A third question naturally follows: How will we recruit the ranks and keep an even number of new graduates flowing into the practice of medicine to replace losses by death and retirement, with the collegiate young men of eighteen to twenty being subject to the draft, and no exemptions provided for prospective medical students?

Doctor, think it over.

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*In the Army, one M.D. to each 143 soldiers and in civilian life, one M.D. to each 1,500 persons.

# ✶ YOU AND YOUR BUSINESS ✶

### 1942 INCOME TAX LAW

The Revenue Act of 1942 as it applies to Doctors of Medicine will be the subject of a detailed article in *The Journal of the American Medical Association* in January. Watch for this article which will give you a complete analysis of the latest and very complicated U. S. Revenue Act. Physicians with considerable incomes to report will do well to utilize the services of an attorney accredited to appear before the Treasury Department.

The new law remedies the unjust method of taxation that has heretofore prevailed in connection with the uncollected accounts on the books of a taxpayer at the time of death. Hereafter the value of such accounts will not be added to the income of the taxpayer for the year of death. This change will result in a considerable saving to the estates of physicians.

A new provision authorizes a taxpayer to deduct amounts expended for medical, dental, and hospital care, *including amounts paid for accident and health insurance,* according to a prescribed formula. Deductions will be permitted to the extent that such expenses exceed five per cent of the net income of the taxpayer but not in excess of $2,500 in case of the head of a family, or $1,250 in case of other individual taxpayers.

Another provision of interest to physicians who employ other persons (such employments being within the coverage of the Social Security Act) *freezes the tax at one per cent for the year 1943,* thus preventing an automatic increase to two per cent as provided in the Social Security Act.

The new law makes no changes with respect to the expenses a physician may deduct in connection with his professional work.

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### GAS RATIONING

Each passenger car is entitled to a basic ration or "A" book good for 240 miles per month (150 miles for essential occupational use and 90 miles for home necessity use—but no pleasure driving).

The B books are good up to 470 miles per month.

The C books are from 471 miles to no maximum.

Both the B and C books, good for 3 months, are tailored to essential professional or occupational needs.

Tires must be inspected at a designated station on a specific date (January 31, 1943) and every 60 days thereafter for cars having B or C books.

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### SNOW TIRES

The Office of Price Administration has denied physicians who practice in areas where deep snows prevail their request to retain special automobile equipment—mud or snow passenger tires—that will enable them to negotiate the winter's snow-covered and muddy roads. Physicians in the Upper Peninsula and in the upper portion of the Lower Peninsula of Michigan feel that unless they are permitted to keep and utilize such winter equipment now in their possession, it will not be possible for them to give prompt service to patients who depend on them for medical care during the months of December, January, February and March.

Approximately 1,400 Michigan physicians have enlisted in the Army and Navy, and our Doctors of Medicine on the home front have three times more work to do than formerly. It is imperative, in the interests of the health and welfare of the patients to be served in the snowbound territory of Michigan that federal regulations covering the use of snow and mud tires be changed. Otherwise, the people will suffer because an important part of a doctor's equipment for the efficient practice of medicine will have been taken from him.

Up to date, OPA has been adamant in this ruling.

All efforts should be made to have this regulation of the Office of Price Administration amended. Individual physicians affected by this ruling have been urged to take prompt action in seeking the aid of their Representatives in Congress to secure necessary amendments to the federal regulation covering the use of snow and mud tires.

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### "DRAINING THE STATE DRY OF DOCTORS"

The following letter was addressed to the Surgeons General of the Army, the Navy, the Air Forces, United States Public Health Service, and to the Procurement & Assignment Service of the War Manpower Commission:

The Medical Department Officer Recruiting Board of Michigan was instructed to "drain the state dry of doctors of medicine", and performed this work most efficiently in face of the fact that thousands upon thousands of new war workers were and are coming to Michigan from other states.

Despite the fact that Michigan has passed its medical recruiting quota by several hundreds (103%), physicians continue to leave for the armed services from areas where they are vitally needed to protect the health of civilians, agriculturists and those working in industry.

The situation is becoming so acute, particularly in those areas where war industries are working day and night, that something must be done to stem the tide or else all agencies concerned will feel the effect of an aroused public opinion and will be severely criticized for any epidemic that may occur in this state.

It is only reasonable to request that the number of civilian physicians in Michigan which already has been greatly reduced by the high percentage of enlistments, should not be further pared—and that physicians in farming country and in those industrial areas of Michigan to which new war workers have come by the thousands should not be made available for service in the armed forces, despite their patriotism and desire to enlist.

Civilian and industrial health protection in Michigan

indicates definitely that a further drain on our medical manpower is most inadvisable. Those doctors of medicine who now remain on the home front will be able, by working twice as hard as in the past, to carry on necessary medical services for our people. No importation of physicians from other states will be required or is desired. However, a further reduction in the number of Michigan practitioners may well be dangerous to the health and welfare of the people of this state.

We thank you for giving this communication serious consideration, and would appreciate your opinion and advice.

Very respectfully yours,
Committee of The Council
Michigan State Medical Society

L. Fernald Foster, M.D., *Chairman*
P. L. Ledwidge, M.D.,
V. M. Moore, M.D.

November 11, 1942.

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## TEMPORARY LICENSES FOR REFUGEE PHYSICIANS?

At the recent Chicago Midwest Regional Conference (of 11 states) of the Council of State Governments, a recommendation was presented that out-of-state doctors of medicine and dentists be granted a temporary license in each of the eleven states in the Midwest Regional Conference.

One of the Michigan representatives, a member of Michigan's Committee on Interstate Coöperation, authorized by the 1941 Legislature, objected strenuously to this proposal to unload an oversupply of refugee physicians on the Middle Western states. He stated that such a proposal, in the guise of a war-time necessity, would lower the standard of medical practice in Michigan by admitting poorly-trained practitioners to this state via a "temporary license."

All State Boards of Medical Examiners of the United States, as well as the Federation of State Medical Boards of the United States, have been informed of this movement so that the members thereof may make contact with representatives to other regional conferences of the Council of State Governments, prior to their being called, in order to avert any unfortunate action on the part of uninformed representatives who might quickly approve such a recommendation.

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## FEDERAL SOCIAL INSURANCE CONTRIBUTION ACT

A bill to translate into federal legislation the President's recommendations that the Social Security Act be amended to extend benefits and to add payments for hospitalization was introduced by Representative Eliot on September 9, 1942 (H.R. 7534).

The major changes in the Social Security Act contemplated by this bill are as follows:

1. *Extend Social Security to New Groups.*

Extension of the Social Security Act to essentially all employed persons; the new groups being agricultural labor, domestic service, employes of nonprofit institutions, fishermen, insurance agents, etc.

2. *Benefits for Permanent Disability—and Rehabilitation.*

In addition to old age pensions, provision is made for "total and permanent" disability for work by reason of illness or injury. The amount of the old age pension or the permanent disability benefit may range upwards to $85.00 per month.

An initial fund not to exceed $400,000 (thereafter 2 per cent of the total amount expended for disability benefits) is established to furnish medical and surgical services for the rehabilitation of persons receiving the disability benefits.

3. *Federalization of Unemployment Compensation.*

Federalization of the unemployment compensation program now administered by several states.

4. *A Federal Sickness Benefit Program.*

Establishment of a federalized temporary disability benefit program which will provide benefits for unemployed because of illness or injury. Eligibility for sickness benefits to be determined by an authorized physician or "expert."

The amount of the weekly benefit for temporary disability, which is the same as the benefit for unemployment compensation, may range from $5.00 to $23.00 per week, depending on the quarterly earnings and the number of dependents.

In addition to disability benefits, each woman is entitled to a weekly maternity benefit equal to the weekly disability benefit, which payment is to commence six weeks prior to her confinement.

5. *A Federal Hospitalization Benefit Program.*

Establishment of a federal hospitalization benefit program paying $3.00 to $6.00 for each day of hospitalization for both the insured workers and their dependents.

To administer this program, a National Advisory Hospital Benefits Council is established and authorization is given for the contracting with hospitals or other agencies or institutions for the provision of the services (that is, the insured person will assign his hospitalization benefits to such hospital or agency in return for the provision of the hospitalization services).

The services to be included in a "day of hospitalization" are not specified. However, an "accredited hospital" is defined as an institution providing at least bed and board, general nursing care, use of the operating room or delivery room, ordinary medications, dressings, laboratory and x-ray services.

6. *Increased Contributions for Social Insurance.*

The contribution from the employer and employe to carry the extended program is increased to 5 per cent for the employer and 5 per cent for the employe for those previously insured under the Social Security Act, 4 per cent for self-employed persons, and 2 per cent by the employer and 2 per cent by the employe in agricultural labor, domestic service, nonprofit institutions, etc., to be collected on all wages, commissions, salaries, etc., up to $3,000 annually for each employe. After 1945 the total contribution will be increased by another 1 per cent.

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■ Every month during 1942 the following advertisers carried their friendly message to the medical profession of Michigan through the pages of THE JOURNAL:

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S. H. Camp & Co., Jackson, Mich.
Ciba Pharmaceutical Products, Inc., Summit, N. J.
Corn Products Sales Co., New York, N. Y.
R. B. Davis Company, (Cocomalt), Hoboken, N. J.
Drake Hotel, Chicago, Ill.
General Electric X-Ray Corporation, Chicago, Ill.
The J. F. Hartz Company, Detroit, Mich.
Hynson-Westcott & Dunning, Baltimore, Md.
Merck & Company, Rahway, N. J.
Michigan State Apple Commission, Lansing, Mich.
National Discount & Audit Company, New York, N. Y.
Picker X-Ray Corporation, New York, N. Y.
Professional Management, Battle Creek, Mich.
Radium Emanation, New York, N. Y.
Schering Corporation, New York, N. Y.
S.M.A. Corporation, Chicago, Ill.
Smith, Kline & French Laboratories, Philadelphia, Pa.
The Spencer Corset Company, Inc., New Haven, Conn.
E. R. Squibb & Sons, New York, N. Y.
Frederick Stearns & Company, Detroit, Mich.
The Upjohn Company, Kalamazoo, Mich.
Winthrop Chemical Company, New York, N. Y.

Additional advertisers whose message appeared in THE JOURNAL during the year, included:

John Wyeth and Brother, Philadelphia, Pa.
D. Hale Brake, Stanton, Mich.
Continental Optical Company, Indianapolis, Ind.
Colwell Publishing Company, Champaign, Ill.
Gane's Chemical Works, Inc., New York, N. Y.
Hanovia Chemical Company, Detroit, Mich.
A. E. Mallard, Detroit, Mich.
Martin-Halsted Company, Detroit, Mich.
Mt. Plymouth Hotel, Mt. Plymouth, Florida.
National Association of Chewing Gum Manufacturers, Staten Island, N. Y.
Nestle's Milk Products, Inc., New York, N. Y.
The Neuro-Psychiatric Institute of the Hartford Retreat, Hartford, Conn.
Physicians Heart Laboratory, Detroit, Mich.
The Stokes Sanitarium, Louisville, Ky.
Uhlemann Optical Company, Detroit, Mich.
Wine Advisory Board, California.

### TRAVELING DENTAL OFFICE WILL VISIT SCHOOLS

A traveling dental office is the Michigan Department of Health's latest contribution to Michigan's program of preparing 18 and 19-year-old youths for military service.

A 24-foot trailer housing complete dental equipment and x-ray camera, first unit of the kind to be placed in use in any state to supply dental services to youths in high schools, is to visit areas where need is greatest because local dentists have been called to the colors.

The age group represents the high peak in accumulation of dental defects. The armed services are rejecting candidates who have poor teeth.

High schools in industrial areas of the state will probably be among the first to be visited by the traveling unit. The Children's Fund of Michigan is conducting a survey in upper peninsula counties to find areas where need of such services is most serious.

Proposed use has been endorsed by the council of the Michigan State Dental Society.

The traveling dental office is the third mobile unit to be placed in service by the Department, a state laboratory trailer and a bus carrying an x-ray camera used in examinations for tuberculosis already having been commissioned.

### MICHIGAN BIRTHS EXPECTED TO REACH ALL-TIME HIGH

Michigan's births this year will reach 121,000 —an all-time high—on the basis of figures tabulated for the first seven months by the Michigan Department of Health.

An expected 53,000-odd deaths this year will leave Michigan's population total some 68,000 to the good, counting births only and without a census of the thousands drawn here by war industry.

The total of births will represent a gain of 14,000 over the 107,000 births reported in 1941.

Michigan's 1941 birth rate of 20.07 exceeded the nation's averaged rate of 19 per 1,000 population.

Records of Michigan births during the last two years do not support the premise that more male than female infants are born in war years, the Michigan rate continuing to hold constant at 106 males to 100 females. Greater mortality among male infants helps to even the count.

### DISTRIBUTION OF PLASMA ADVANCED TO JANUARY 1

Due to the difficulty encountered in obtaining blood plasma equipment, and because of the lack of personnel, the approximate date for blood plasma distribution has been advanced to January 1.

It has been necessary to redesign equipment because of changes in War Production Board regulations and inasmuch as rubber is a necessary part of the equipment, delays must be expected in the production and distribution of the plasma on a state-wide basis.

Plasma will be processed in the laboratories of the Michigan Department of Health.

### TOURIST INDUSTRY FINDS THAT SANITATION PAYS

Number of "sanitation approved" signs furnished to Michigan's tourist industry by the state health department has more than doubled in the last three seasons, proof that resort owners find it pays to offer the kind of accommodations that can pass rigid inspection.

Resorts approved last summer totaled 580 as compared with the 262 which were furnished signs in 1940. Approved cabin camps jumped to 456 this year from 180 two years ago.

Inspectors from state and local health departments visit cabin camps, cottage camps, summer resort hotels, children's camps, state, county and township parks and amusement resorts. Number of cabin camps again showed an increase this year, the classification now representing 63.5 per cent of all resorts. The percentage was 53 in 1940.

War requirements cut into the supply of qualified inspectors last summer and roadside inspections of water supplies of gas stations, restaurants, parks, dairy bars and so forth were limited to counties having full-time health departments.

Signs designating approved water supplies were furnished 44 per cent of these roadside stands this year, as compared with 26 per cent in 1940.

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## ANNUAL COUNTY SECRETARIES' CONFERENCE

**January 24, 1943—Lansing**

**Olds Hotel, 10 A.M. to 4 P.M.**

**Tentative Program**

*Morning*

1. The Rationing Program as it Affects Physicians—Edward T. Broadwell, Rationing Director, OPA, Detroit, Michigan.
2. Any Spies in Michigan?—Captain Harold Mulbar, Michigan State Police, East Lansing, Michigan.
3. Physicians' Income Tax for 1942—J. W. Holloway, Jr., Bureau of Legal Medicine, American Medical Association, Chicago, Illinois.
4. Facts For the Physician—L. Fernald Foster, M.D., Michigan State Medical Society, Bay City, Michigan.

**Question and Answer Period**

*Cocktails and Noonday Dinner*

5. Greetings from—Harry F. Kelly, Governor.
6. How the Medical Profession Can Meet Military, Industrial, Research, and Civilian Needs During Wartime—Lt. Comm. M. E. Lapham, USN, Procurement and Assignment Service, Washington, D. C.

*Afternoon*

7. "Temporary Licenses" and Dislocating of Physicians—Earl W. Munshaw, LL.B., State Senator, Grand Rapids, Michigan.
8. Group Disability Insurance for Physicians—Eric Nissen, Insurance Councilor, Detroit, Michigan.

**Question and Answer Period**

---

*Practice of Medicine by Hospitals:* The A.M.A. Board of Trustees recently appointed a committee of three to study the matter of hospital corporations engaging in the practice of medicine and of the improvement of the relations between physicians and insurance companies.

* * *

*Capt. J. E. Clifford, M.C.,* 44th Hospital Train, Camp Gruber, Oklahoma, writes: "I really appreciate receiving the Michigan State Medical Society Journal, out here in the wilds of Oklahoma. It is like money from home. Many thanks, again, and keep 'em coming."

* * *

*Lawrence Reynolds, M.D.,* Detroit, presented the Henry K. Pancoast Memorial Lecture before the Philadelphia Roentgen Ray Society and the Philadelphia College of Physicians, Thursday evening, November 5. This was the second Pancoast Lecture.


*Professional Endorsement*

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★ "Permit me to congratulate you on a very beautiful bifocal lens."—*The Presbyterian Hospital,* New York, N.Y.

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9. Segment inside, protected.

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*"No great deed* is done by falterers who ask for certainty."—George Eliot.

* * *

*The Highland Park Physicians Club* has decided to suspend its annual clinic for the duration, because of difficulties arising out of the present emergency.

* * *

*Always interesting* and ofttimes amusing reading is found in "Michigan Medical Memoirs," published by the Editor in the *Bulletin of the Jackson County Medical Society.*

* * *

*"Each doctor should be very careful* of his or her own health" states O. M. Randall, M.D., president of the Ingham County Medical Society in the *Ingham Bulletin.*

* * *

*O. D. Stryker, M.D.,* of Fremont, was appointed as Councilor of the 11th District to take the place of Roy Herbert Holmes, M.D., who resigned to enter the armed forces as a Major in the Air Corps.

* * *

*The Michigan State Board of Registration in Medicine, on* November 2 advised that the medical license of John Durwood Bradford of Portland, Michigan, was revoked.

* * *

*Locum Tenens:* Anyone interested in securing a locum tenens for the month of December please contact the Michigan State Medical Society, 2020 Olds Tower, Lansing, Michigan, Phone 5-7125.

* * *

*The History* of the Washtenaw County Medical Society, written by John A. Wessinger, M.D., is being published in serial form in the *Bulletin of the Washtenaw County Medical Society.* The articles are as interesting as a fictional novel.

* * *

*R. J. Himmelberger, M.D.,* of Lansing, Michigan, has resigned as Secretary of the Ingham County Medical Society to enter service in the armed forces. F. Mansel Dunn, M.D., 301 N. Seymour Street, Lansing, is the new Secretary.

* * *

*Mark Marshall, M.D., and R. Wallace Teed, M.D.,* Ann Arbor, are authors of an article under "Clinical Notes" in *Journal of the American Medical Association* of October 17, 1942, entitled "Torula Histolytica Meningoencephalitis."

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*"A medical problem* your doctor seldom talks about —one of his most perplexing problems" is the title of a leaflet referring to the physicians' lack of time. This is reprinted from an advertisement published by Parke, Davis and Company, Detroit. The leaflets are available to individual physicians or county medical societies.

* * *

*The Statler Hotel, Detroit,* will be the scene of the 1943 Postgraduate Conference on War Medicine—the 78th annual meeting of the Michigan State Medical Society—on Wednesday, Thursday and Friday, September 22, 23, 24, 1943.

* * *

*The Basic Science Board* will hold its next examination in Detroit and Ann Arbor simultaneously, on February 12-13, 1943. Applications may be obtained by writing the Basic Science Board, Walnut Street, Lansing, Michigan.

* * *

*The Annual County Secretaries' Conference* will be held at the Olds Hotel, Lansing, Sunday, January 24, 1943, 10 a.m. to 4 p.m. All members are invited to attend this meeting. An intensely interesting and practical program is being developed. (See Page 1069.)

* * *

*Roster of Military Members.* The February, 1943 MSMS JOURNAL will contain a roster of Michigan's military members. Lists are being developed by the county society secretaries, for certification to the State Society as of December 15, 1942.

*Written Examinations* by the American Board of Obstetrics and Gynecology will be held on February 13, 1943. The oral-clinical and pathological examinations are scheduled for Pittsburgh from May 19 to May 25, 1943, according to Paul Titus, M.D., 1015 Highland Building, Pittsburgh.

* * *

*Wm. A. Repp, M.D.,* was the guest of honor at a reception and dinner on November 7 in the Statler Hotel, Detroit, celebrating his golden anniversary in the practice of medicine and his long association with St. Mary's Hospital, Detroit. Over 200 physicians and their wives attended this testimonial to Dr. Repp.

* * *

*Robert L. Dixon, M.D.,* until 1937 Superintendent of the Lapeer Home and Training School and since then Superintendent of Caro State Hospital, has been appointed Acting Superintendent of the Lapeer State Home & Training School, replacing Fred R. Hanna, M.D., who died recently.

* * *

*Enforcement of State Trailer Camp Regulations* was legally upheld by Circuit Judge George W. Sample of Ann Arbor who recently dismissed an injunction which restrained officials from prosecuting a trailer camp operator on a charge of operating his camp without a license which the county had refused to grant because of unhealthy sanitary conditions in the camp. Judge Sample found that the health authorities had "done no more than to perform well the duties imposed upon them by statute."

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*The Genesee County Medical Bulletin* of October 13 was dedicated to J. W. Handy, M.D., Emeritus Member of the Michigan State Medical Society, who recently passed his ninetieth birthday. Dr. Handy was graduated from the University of Michigan Medical School in 1884 and has been practicing in Flint since 1885.

* * *

*The Kalamazoo Academy of Medicine* has appointed a special committee on Publicity and Public Relations to consider matters relative to the relation of the profession and the public in the present emergency. Ralph G. Cook, M.D., R. J. Hubbell, M.D., and William G. Hoebke, M.D., are members of this important committee.

* * *

*"Nutrition in Everyday Practice"* by Frederick F. Gistall, M.D., of Toronto was the fourth in a series of talks on "Nutrition in Medicine, Dentistry and Industry." This talk in the Art Institute, Detroit, on December 14, was under the auspices of the Wayne County Medical Society and the Detroit Pediatric Society.

* * *

*J. Lyndon Leet,* Assistant Executive Secretary of the Michigan State Medical Society for the past seven years, was commissioned a First Lieutenant in the Medical Administrative Corps and left Lansing for O'Reilly General Hospital, Springfield, Missouri, on October 12. Lieutenant Leet will be assigned to the 36th General Hospital (Wayne University College of Medicine Unit) when it is activated.

* * *

*Syphilis cases* show a marked increase over the number reported last year but much of this increase is undoubtedly due to better or more effective case finding methods. Donating of blood for the blood bank, selective service, industrial and premarital blood tests have accounted for the discovery of many cases hitherto unrecognized.—From *Oakland County Bulletin,* November, 1942.

* * *

*"It is all too evident* that many physicians are not making a vaginal examination in their premarital examinations," states the Editor of the *Oakland County Bulletin.* "The law is quite specific about this examination. . . . If you do not carry out the intent and purpose of this law you are negligent in your duty and are bringing discredit upon your profession."

This timely editorial appears in the October, 1942, *Bulletin.*

* * *

*Udo J. Wile, M.D.,* of Ann Arbor has been commissioned Medical Director (R) in the U. S. Public Health Service for active duty with the Division of Venereal Disease Control. Dr. Wile will conduct a study of all new methods described in recent years by various clinics for the intensive treatment of syphilis, and will also supervise the quarantine hospitals which the Public Health Service and the states are developing in a number of critical war areas.



*Say you saw it in the Journal of the Michigan State Medical Society*

*Wm. H. Alexander, M.D.* of Iron Mountain is President and L. E. Coffin, M.D. of Painesdale, is President-elect of the Upper Peninsula Medical Society. The next meeting will be held in Iron Mountain in July, 1943. The Secretary of the U. P. Medical Society is the Secretary of the county medical society of the host city. The present Secretary of Dickinson-Iron County Medical Society is E. B. Andersen, M.D. of Iron Mountain.

* * *

*Kalamazoo's* remaining sixty-three doctors have set up a professional "dog-watch" system to assure twenty-four-hour emergency medical and surgical care. Physicians and surgeons, serving in rotation, will keep an all-night vigil at one of the two local hospitals, and patients will be given necessary treatment by these practitioners in emergency cases until their family physicians can be contacted. A committee of the Kalamazoo Academy of Medicine originated and introduced the plan.

* * *

*Distance Involved in Pacific Area.* The September 21, 1942, *Newsmap,* distributed by Army Orientation Course shows distance (nautical miles—one nautical mile equal to 1.15 statute mile) from San Francisco to Solomon Islands, 5,166 miles; to Sydney, Australia, 6,531 miles; to Auckland, New Zealand, 5,932 miles; from New York to Dakar, 3,629 miles; to Capetown, 6,786 miles; to Bombay, 11,356 miles, and to Calcutta, 12,247. What vast distances over which to move men, military supplies and food!

* * *

**More About the 1942 MSMS Annual Meeting**

*W. D. Gatch, M.D.,* Indianapolis: "I wish to congratulate you on the very fine meeting you arranged at Grand Rapids."

*Lawrence Reynolds, M.D.,* Detroit, Radiology, Pathology, Anesthesia Discussion Conference Leader: "I believe that this is a well worthwhile conference and should develop into a very instructive part of the annual meeting. Our conference was very well attended."

* * *

*Disposition of Narcotics* by Physicians Entering the Armed Forces: The Bureau of Narcotics advises that any narcotics on hand in unbroken packages may be returned to the person from whom obtained, pursuant to an official order form; or they may be sold to another registrant under the Narcotic Laws provided that specific authority has been obtained from the Collector of Internal Revenue to transfer or sell the drugs pursuant to official order form; or the drugs may be surrendered voluntarily to the local office of the Bureau of Narcotics, Federal Building, Detroit, Cherry 9330, Extension 580.

* * *

*The Tuscola County Medical Society* honored its Past Presidents at its October meeting, presenting the following physicians with Past President's keys: George Bates, M.D.; Frank L. Morris, M.D.; Robert L. Dixon, M.D.; J. G. Maurer, M.D.; O. G. Johnson, M.D.; Annie

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SUMMIT, NEW JERSEY

S. Rundell, M.D.; Harry A. Barbour, M.D.; Lloyd L. Savage, M.D.; Bernard Starmann, M.D., and R. R. Howlett, M.D. The meeting was preceded by a dinner at the Montague Hotel at Caro and was presided over by E. C. Swanson, M.D., President. MSMS Councilor W. E. Barstow, M.D., of St. Louis, made the presentation of the gold key charms.

* * *

*A proposed consultation service for military rejectees* in Hamilton County, Ohio, has been prepared, to be conducted experimentally under the joint auspices of the Cincinnati Board of Health and Public Health Federation. The plan aims to contact the rejectees, ascertain the cause of rejection, and help advise them as to remedial procedures. The proposal contemplates the possibility that if the service proves valuable it may later be taken over and continued by the Ohio Selective Service. An Advisory Committee, with medical representation, will determine all policies for the service.

* * *

*V. L. VanDuzen, M.D.,* formerly of Belding, has been appointed as Coördinator for the Crippled Children Commission in charge of its Grand Rapids office, located at 303 Loraine Building.

Dr. VanDuzen was in the private practice of medicine in Detroit and more recently in Belding before becoming associated with the Crippled Children Commission, six months ago.

Dr. VanDuzen is the fourth coördinator appointed by the Commission, the others being David Kliger, M.D., Detroit; W. G. Hutchinson, M.D., Oakland County; A. H. Miller, M.D., Upper Peninsula.

* * *

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Cameron Surgical Specialty Company, Chicago, Illinois
S. H. Camp & Company, Jackson, Michigan
Ciba Pharmaceutical Products, Inc., Summit, New Jersey
Cottrell-Clarke, Inc., Detroit, Michigan
Cream of Wheat Corporation, Minneapolis, Minnesota
R. B. Davis Company, Hoboken, New Jersey
Davis & Geck, Inc., Brooklyn, New York
DePuy Manufacturing Company, Warsaw, Indiana
Detroit Creamery Company, Detroit, Michigan

The above ten firms were among the exhibitors at the 1942 MSMS annual meeting in Grand Rapids and helped make possible for your enjoyment one of the oustanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or services.

* * *

### Course in Occupational Dermatoses

A combined lecture and demonstration course in Occupational Dermatoses will be conducted in Chicago, beginning January 11, 1943, by Dr. Louis Schwartz, Chief of the Dermatoses Investigations Section of the U. S. Public Health Service of Bethesda, Maryland. The teaching period will cover two weeks, the first of which will be devoted to lectures and demonstrations, and the second to plant visits. Dermatologists, industrial physicians and others interested in the course should communicate with Dr. Edward A. Oliver, 55 East Washington Street, Chicago, Illinois.

No limit will be placed upon enrollment for the lec-



*Say you saw it in the Journal of the Michigan State Medical Society*

tures, but the visits to the plants will be limited to twenty-four enrollees. No fees will be charged.

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**The Fifth Annual Forum on Allergy**

This international postgraduate society will meet in the Hotel Statler in Cleveland, Ohio, the week end of January 9 and 10, 1943. This Forum will offer in most intensive presentation both the new and the old in allergy. The meeting will be characterized by its use of all the various types of instruction. Formal lectures, special talks, dry clinics, study groups, moving pictures, kodachromes, panel discussions, ending with an "Information On Allergy, Please," will all be used to teach the physicians of the United States and Canada. Not only will specialists in this new field of internal medicine gather, but also those whose interests are in allied fields of medicine will be welcome, for in wartime every physician is called upon to advise and treat allergic patients. This is especially true of those in internal medicine, diseases of children, diseases of the skin, diseases of the eye, diseases of the nose and throat, as well as those engaged in basic research in immunology. A course in immunology as it applies to allergy will be given the week before by Dr. Eckers to a limited number of physicians and associates. Any physician interested in either or both of the foregoing is invited to write Dr. Jonathan Forman, 956 Bryden Road, Columbus, Ohio, for copies of the printed program and registration blanks.

Among the fifty-eight allergists participating in the program are most of the leaders in this field, including Stanley Insley, M.D., Sam Levine, M.D., George Waldbott, M.D., all of Detroit. Arthur Coca, M.D., of New York will receive the Forum's Gold Medal and will give the annual Forum Lecture, on Sunday afternoon.

---

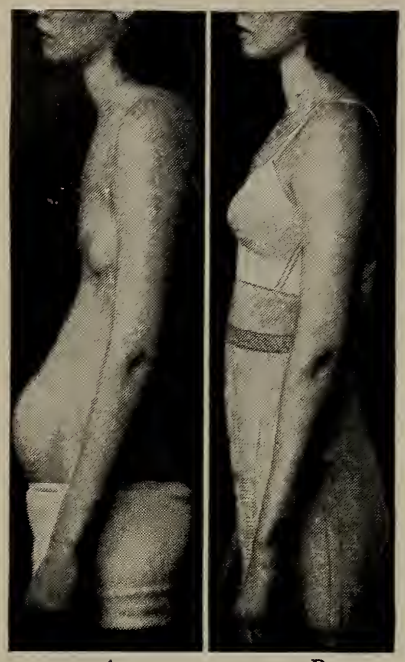
**TRANSFUSIONS VIA BONE MARROW**

When the administration of blood and other fluids directly into the general circulation is indicated, and when for any reason, suitable veins for injection are not available, the solution can be infused via the red bone marrow. Substances so injected are taken up immediately into the venous circulation unchanged.

To date, the procedure for the administration of parenteral fluids has been used 116 times in 90 patients. Fifty-two of these individuals were adults and 38 were children under 10 years of age. These experiences have convinced us of the utility and safety of the method, if employed properly, when indicated, and with due regard for the necessary precautions. In most patients receiving fluids by this technique, the need for rapid administration was not great, but administration directly into the circulation was required, and the veins, for one or another reason, could not be used. The incidence of local or constitutional reactions following this form of therapy, has, in our experience, been low.—James F. O'Neal, M.D., et al., *N. Car. Med. Jour.*, (Sept.) 1942.




# Patients with Long-Standing Ptosis



A B

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# IN MEMORIAM

**DIED IN SERVICE**

**Lieutenant John D. Reid** of Ironwood was born in 1909, and was graduated from the University School of Medicine in 1935. He was a popular young physician, well known throughout the range as an active member of civic and fraternal groups and as the attending doctor for the Ironwood high school athletic teams. He was killed in an automobile accident near Camp McCoy, Wisconsin, on October 27, 1942.

**Fred R. Hanna** of Lapeer, was born in 1900 in Detroit, and was graduated from the Detroit College of Medicine in 1931. After graduation he practiced at Reed City, and served as assistant medical director of Oakland County before his appointment as Superintendent of the Lapeer State Home and Training school in 1933. Doctor Hanna was a member of the American Psychiatric society and many civic organizations of Lapeer.

He died following a heart attack on October 27, 1942.

**George A. Holliday** of Traverse City, was born in 1867 in Myrtle, Ontario, and was graduated from the University of Michigan School of Dentistry and returned to Traverse City where he engaged in practice for thirteen years when he entered the Detroit College of Medicine, graduating in 1904. In 1904 Doctor Holliday entered medical practice in Traverse City and continued until 1917, when he was called into active service with the Navy Reserve unit. He later was transferred to the Army Medical corps with the rank of Major and served as a transport surgeon until eighteen months after the Armistice when he resumed his local practice. Doctor Holliday was health officer of Traverse City for a quarter of a century, continuing in this work until the local health unit was organized a few years ago. He died October 30, 1942.

---

The instance of syphilis in patients with cancer of the mouth has been reported to be as high as 35 per cent as compared to 5 per cent in the general population. Syphilis in the absence of a mouth tumor deserves thorough treatment, but the finding of a positive Wassermann with a mouth lesion means little, as far as the lesion is concerned. The important thing is to prove whether or not the lesion is due to cancer.

The most important lesion occurring in the mouth is cancer, and the only way to rule it out is by repeated negative biopsies. A sore in the mouth should never be treated for syphilis or granuloma until cancer is ruled out. Any large lymph nodes in the neck usually represent cancer from the mouth in the adult, and a thorough search of the mouth should be carried out before ill-advised surgical removal or treatment by irradiation methods is instituted.—J. Elliott Scarborough, Jr., M.D., *Jour. Med. Assn. Ga.*, (Sept.) 1942.



*Say you saw it in the Journal of the Michigan State Medical Society*

# THE DOCTOR'S LIBRARY

*Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.*

AFTER-EFFECTS OF BRAIN INJURIES IN WAR. Their Evaluation and Treatment, The Application of Psychologic Methods in the Clinic. By Kurt Goldstein, Clinical Professor of Neurology, Tufts Medical School, New York; Grune & Stratton, 1942. Price, $4.00.

During the last war the percentage of deaths shortly after brain injuries was extremely large. Most common were injuries from gunshot and shrapnel, those from aerial bombings were rare. This study is based upon observation of about 2,000 cases, and analyzes the symptoms such as disturbances to the vasomotor system, diffuse or circumscribed, disturbances of general function, sugar metabolism, epilepsy, neurological symptoms, disturbances of function, lesions of the visual area, with many tests, disturbances of space function, color vision, constriction of the fields. Mental symptoms are studied and classified as to their bearing. Lesions in various parts of the brain produce specific alterations of function. Many cases are quoted to illustrate this point, and to show the methods of treatment, which ones may be rehabilitated, and which must be prepared for some life entirely different from his previous one. A most interesting book, and one that may answer many questions about patients injured other than in war. The brain-injured soldier will impose a problem on many of us after the war, and this book gives many of the answers, and procedures of treatment.

DAILY LOG FOR PHYSICIANS. A Brief, Simple, Accurate Financial Record for the Physician's Desk. Champaign, Ill.: Colwell Publishing Co., 1943. Price, $6.00.

Dr. Colwell's Daily Log is a loose leaf type of book with a page for each day and additional pages at the end of each month for complete record of office and other expenses; also a summary of receipts, charges, and operations and obstetric records. With the present income tax requirements, something of this nature is almost indispensable. This is handy, and in a form to be filed each year for reference. It could also be used as an appointment book and day book combined.

THE MIND AND ITS DISORDERS. By James N. Brawner, M.D., Medical Superintendent, Brawner's Sanitarium, Smyrna, Ga. Atlanta, Ga.: Walter W. Brown Publishing Co., 1942. Price, cloth, $3.50.

This book is written for the use of the general practitioner of medicine who has a small knowledge of psychiatry, and, so far as possible, is presented in language understandable by the men who must look after the medical needs of the larger percentage of patients suffering from mental disease. At first a few necessary terms and their definitions are given. The symptoms most commonly present are freely discussed, then mental states are considered. There is a classification of mental disorders appended. The book is readable and will be very helpful to the man who first sees these patients, and who in many instances will be the sole attendant.


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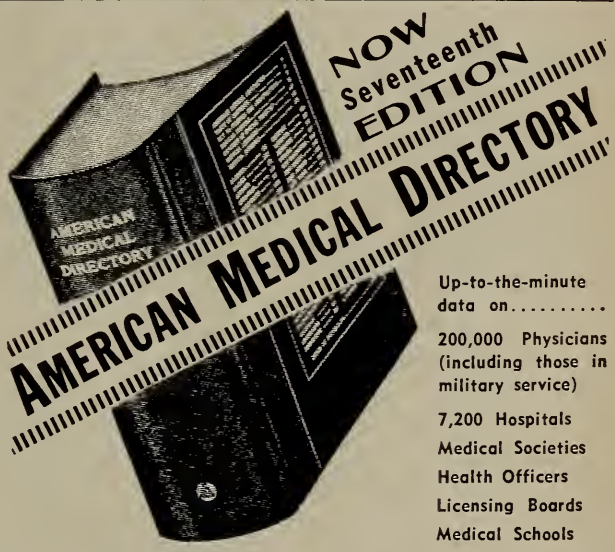


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THE VERTEBRATE EYE AND ITS ADAPTIVE RADIATION. By Gordon Lynn Wallis, Research Associate in Ophthalmology, Wayne University College of Medicine. Cranbrook Institute of Science, Bulletin No. 19, August 1942. Bloomfield Hills, Michigan: The Cranbrook Press, 1942.

This book is a research in our own state representing an endless amount of work and detail. It is a serial presentation of the sense of light that later becomes the sense of vision. The book of 785 pages is so arranged that the discussion of any given study will be perfectly understood if as the author says "the reader has not skipped too much before it." Subsequent studies and expositions are built from what precedes. The book is a challenge, but a serious study, and to men interested in ophthalmology opens up a vast storehouse of facts, with an analysis of reasons and deductions. The book is profusely illustrated and well indexed. It is a complete study of the organ of sight in all strata of life. Derivations from lower forms, and differences of the eyes are described, beginning with the lowest forms and functions. The Mammals are last, and are of three orders, the monotreme, the marsupial and the placentalian. The histological study, and development of function and visual adaptation make interesting reading. For the student of the physiology, anatomy and comparative analysis of ophthalmology this book is a gold mine.

PRINCIPLES OF EXTRAPERITONEAL CESAREAN SECTION. By James V. Ricci, Associate Clinical Professor of Gynecology and Obstetrics, New York Medical College, and James Pratt Marr, Associate Attending Surgeon, Woman's Hospital of the State of New York. Philadelphia: P. Blakiston Company, 1942. Price, $4.50.

This book is an argument for the extraperitoneal approach to cesarean section. The old classical operations are out of date, not without danger, and do much damage to delicate muscles and structures in addition to adding the peritoneal cavity to the other points of traumatism or insult. The gynecologist of decades ago missed the opportunity to advance his specialty, and make it all-inclusive, and the obstetrician did the same thing. Now is an opportunity to retrieve much of this field, and make the delivery of women a complete specialty. The book is well written, makes a detailed study of the whole field of cesarean section as practiced today, and gives special attention to the techniques of the various extraperitoneal operations, and especially the Physick-Sellheim operation. The work is well illustrated, forty-seven, and 224 pages. It is a handsome book.

ABDOMINAL AND GENITO-URINARY INJURIES. Prepared under the auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Illustrated. Philadelphia and London: W. B. Saunders Company, 1942.

This is one of the volumes prepared at the request of the rapidly expanding Medical Department of the rapidly expanding Army, under the editorial direction of Dr. Richard M. Hewitt. Abdominal wounds and modern warfare, study and estimation of the status of the patient with known or suspected abdominal injuries, pre-anesthetic preparations, operative procedures are all well explained, illustrated and presented in concise form. The book is valuable in that it brings a host of material into a handy easily consulted volume. The section on genito-urinary injuries is especially well done, profusely illustrated and "do's and don'ts" given.



Say you saw it in the Journal of the Michigan State Medical Society

THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA (THE UNITED STATES PHARMACOPŒIA). Twelfth revision (U. S. P. XII) By Authority of the United State Pharmacopœial Convention meeting at Washington, D. C., May 14 and 15, 1940. Prepared by the Committee of Revision and published by the Board of Trustees. Official from November 1, 1942. Easton, Pa.: Mack Printing Company, 1942. Price, $7.50.

This twelfth revision of the United States Pharmacopœia was undertaken under the chairmanship of E. Fullerton Cook, by authority of the United States Pharmacopœial Convention in Washington, May 14-15, 1940.

Delegates from Michigan represented Detroit Institute of Technology, College of Pharmacy; Michigan State Pharmaceutical Association; Ferris Institute, College of Pharmacy; University of Michigan Medical School, and College of Pharmacy; Wayne University College of Medicine, and College of Pharmacy.

The object is to promote standards for drugs and medicines of sufficient therapeutic usefulness and necessity to use in the United States and its possessions, to express the average dosage, to standardize nomenclature, to give formulæ for the manufacture of pharmaceuticals together with tests and standards.

Lists of articles added to this revision and rejected from the list are given, also changes in names, and corresponding English and Spanish names. This book is complete, gives the recognized remedies, and the standard methods of preparation and dosage.

The sulpha drugs and many vitamins have been added, with complete physical characteristics and formulas.

STANDARD NOMENCLATURE OF DISEASE AND STANDARD NOMENCLATURE OF OPERATIONS. Edited by Edwin P. Jordan, M.D., Chicago: American Medical Association, 1942.

This is a complete revision of the original volume published in 1932. It was developed by a committee appointed by the Board of Trustees of the American Medical Association.

The book is 5 x 7½ inches, flexible leather binding, 1022 pages, on light clear paper. The various sections are thumb indexed. All divisions are Library indexed, the numbers referring to systems, topographical division, etc., and etiology. These numbers are perfect classification involving six figures, each of which has a prearranged meaning.

This standardization of nomenclature would make indexing and classification an exact science, and most valuable in our hospitals.

WAR GASES, Their Identification and Decontamination. By Morris B. Jacobs, Ph.D., Food, Drug and Insecticide Admin. U.S. Dept of Agr. 1927, Chemist Department of Health, City of New York, 1928. Formerly, Lt. U.S. Chemical Warfare Service Headquarters. New York: Interscience Publishers, Inc., 1942. Price: $3.00.

This handsize little book is printed on flat paper, and gives description of all the war gases, especially those of interest in Civilian Defense, with identification tests and methods of avoiding and decontaminating.

It is written largely for use of air raid wardens, gas officers, and all who may come into contact with war gases. And that in this war includes the civilian. Treatment of the individual is not given. The book is a scientific treatise and has assembled a wealth of knowledge and material. It is well indexed.

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## Reading Notice

### CONTINUOUS CAUDAL ANESTHESIA IN OBSTETRICS

A new method for continuous or fractional caudal anesthesia has been developed by Edwards and Hingson (Am. Jour. Surg., 57:459, September, 1942). It appears to be remarkably effective and yet retains the complete coöperation of the patient. There has been uniform absence of delirium, narcosis, cyanosis, nausea, vomiting, and anoxemia, and no interference with uterine contractions. Every infant in the authors' series breathed spontaneously except one stillborn known to have been dead several days before delivery.

The technique consists in the injection of an initial dose of 30 c.c. of 1½ per cent solution of "Metycaine" [Gamma-(2-methyl-piperidino)-propyl Benzoate Hydrochloride, Lilly] followed at thirty or forty-minute intervals with 20 c.c. of the 1½ per cent solution. In every case there has been complete freedom of pain and discomfort of active labor within five minutes following the initial dose. Episiotomy and outlet forceps, and repair of the episiotomy has been without pain. The average duration of anesthesia has ranged from four and three-quarters to thirteen hours.

One patient described was having eclamptic convulsions when admitted, with blood pressure 220/110. After the initial dose of "Metycaine" was given, the pressure declined to 140/90 and the clinical picture improved remarkably. The anesthetic was continued throughout the day without the blood pressure exceeding 150. She delivered a healthy baby spontaneously thirteen hours after the initial dose.

EMERGENCY CARE. By Marie A. Wooders, B.S., R.N., Principal, School of Nursing, Hackensack Hospital, Hackensack, New Jersey, and Donald A. Curtis, M.D., Lieutenant Colonel, Medical Reserve, Commanding 342nd Medical Regiment, United States Army; Instructor in Military Nursing, Hackensack Hospital, Hackensack, New Jersey. 201 illustrations. Philadelphia: F. A. Davis Company, Publishers, 1942.

This is a nurses' teaching textbook. It is profuse in its detail of description. It tells how to do things, what to do and why, and it covers every branch of nursing care looking especially to Emergency care, but it does not give the Medical treatment. There are 201 illustrations, all indexed for ready reference. The book will fill a decidedly valuable place.

WAR MEDICINE, A Symposium. Editor, Winfield Scott Pugh, M.D., Commander, (M.C.) U.S.N. Retired. Formerly Surgeon, City Hospital, New York. Associate editor, Edward Podolsky, M.D.; Technical editor, Dagobert D. Runes, Ph.D. New York: Philosophical Library, 1942. Price: $7.50.

This is a collection of about fifty monographs, some reprinted chiefly from: *The Military Surgeon, The British Medical Journal* and *American Journal of Surgery*. Many other journals are also credited for use of material.

The book is well arranged, well printed and illustrated.

Every conceivable ailment that might impair the soldier's usefulness is discussed and the accepted treatment outlined, from Brain Injury, to chigger and jigger bites, from anesthesia in war circumstances to locations of evacuation hospitals away from railroads. We like this book and its great store of helpful suggestions that will be useful long after this war is ended.

WHEN DOCTORS ARE RATIONED. By Dwight Anderson, Director of Public Relations, Medical Society of the State of New York, and Margaret Baylous, Therapist, Charleston General Hospital, Charleston, W. Va. New York: Coward-McCann, Inc., 1942. Price: $2.00.

This book is a complete exposition of the efforts of organized medicine to survey and set up a method of supplying doctors for the armed forces, and at the same time to keep enough for the care of the civilian population. This is the history of the Procurement and Assignment, as it was supposed to work. The American Medical Association with the state and county societies had a working plan with punchcards for 180,000 doctors, giving all information. This was taken over by the government, and the name changed from Medical Preparedness committee to Procurement and Assignment. The method of selecting doctors for the services needed is set forth, also a chapter on how a private citizen can also select his family doctor, with equal assurance. This book makes a permanent record of the facilities built up by organized medicine, which were ready for the use of the government when the war broke out, and as a part of contemporary history should be in every public library in the country. This book counteracts the propaganda which we are beginning to see from Washington—the need for placing salaried physicians in various localities from which the local physicians have been called to the services.

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The germs of *tularemia*, dread rabbit fever, are particularly dangerous, since they can penetrate even healthy human skin.

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